

**The Delaware and Hudson Canal Company**  
**Addendum V (December 31, 2022) to**  
**S. Robert Powell's Twenty-four Volume Series on the**  
**Delaware and Hudson Railroad**



“Del. & Hud. Gravity Road Depot” (No. 1190 in Ludolph Hensel’s Series No. 2 (“Stereoscopic Views CARBONDALE, Pa.”), published in 1879. Passenger cars at the Gravity Depot can be seen in the upper-right corner of this photograph. The workers in the D&H Gravity Shops are shown here as they pose for the photographer.

**By**

**S. Robert Powell**

**Published by the Carbondale Historical Society & Museum, Inc.**

**December 31, 2022**

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247 pages

## Introduction

Collecting, preserving, and interpreting D&H artifacts is a never-ending process, as is the writing of the history of (1) the Delaware and Hudson Canal and Gravity Railroad in the nineteenth century, and (2) the Delaware and Hudson Railroad in the twentieth century and beyond.

Remarkably, unpublished photographs, texts, research reports, first-person accounts, artifacts, and documents about the D&H continue to surface. At the same time, careful examination of existing D&H materials of all kinds brings to light data that were “unseen” by previous D&H historians. In addition, new first-person accounts by credible witnesses are recorded and new scholarly articles are written as present-day historians focus on the Delaware and Hudson Canal Company (and its Canal and Gravity Railroad) and the Delaware and Hudson Railroad.

All of those “new” data about the D&H that are learned / discovered annually must be captured / preserved / recorded for the record before they are lost forever. To that end, we have produced, therefore, *Addendum V*, which, like *Addendum I*, *Addendum II*, *Addendum III*, and *Addendum IV*, is to be seen as a repository for data that will one day be incorporated into the author’s twenty-four volume history of the D&H that was written and published in the period 2014-2018.

We are pleased to express here our thanks to the many individuals who have made available for publication here of important new or previously unpublished material about the D&H. All of those “contributors” to this published record of the D&H are named in the 105 “entries” in this 247-page document.

This volume, *Addendum V (December 31, 2022) to S. Robert Powell’s Twenty-four Volume Series on the Delaware and Hudson Railroad*, like all of the volumes and all of the articles on the history of the D&H that we have written in the past nine years, can be read on-line at *InternetArchive.org*. The titles of all of those books and articles are listed in “Delaware and Hudson Railroad Bibliography / Books and Articles by S. Robert Powell,” as follows:

### A. Books:

Twenty-nine volumes, illustrated, on the history of the Delaware and Hudson Gravity Railroad and the Delaware and Hudson Company by S. Robert Powell. There are 12,016 pages in the 29 volumes. Each volume is a separate book in an electronic format (one or more pdf files) on one archival DVD. To read, insert each disc into a computer and scroll through the text.

- I.           *Gravity Railroad: 1829 Configuration*  
271 pages, illustrated, ISBN: 978-0-9903835-0-5
- II.          *Gravity Railroad: 1845 Configuration*  
267 pages, illustrated, ISBN: 978-0-9903835-1-2

- III.        *Gravity Railroad: 1859 Configuration*  
493 pages, illustrated ISBN: 978-0-9903835-2-9
  
- IV.        *Gravity Railroad: 1868 Configuration*  
601 pages, illustrated, ISBN: 978-0-9903835-3-6
  
- V.         *Gravity Railroad: 1899 Configuration*  
291 pages, illustrated, ISBN: 978-0-9903835-4-3
  
- VI.        *Waterpower on the Gravity Railroad*  
144 pages, illustrated, ISBN: 978-0-9903835-5-0
  
- VII.       *Working Horses and Mules on the Gravity Railroad*  
226 pages, illustrated, ISBN: 978-0-9903835-6-7
  
- VIII.      *Passenger Service on the Gravity Railroad*  
360 pages, illustrated, ISBN: 978-0-9903835-7-4
  
- IX.        *Farview Park*  
290 pages, illustrated, ISBN: 978-0-9903835-8-1
  
- X.         *The Steam Line from Carbondale to Scranton (the Valley Road)*  
341 pages, illustrated, ISBN: 978-0-9903835-9-8
  
- XI.        *The Jefferson Branch of the Erie Railroad (Carbondale to Lanesboro)*  
354 pages, illustrated, ISBN: 978-0-9863967-0-0
  
- XII.       *Reaching Out: D&H Steam Lines beyond the Lackawanna Valley*  
687 pages, illustrated, ISBN: 978-0-9863967-1-7
  
- XIII.      *Troubled Times—the 1870s*  
291 pages, illustrated, ISBN: 978-0-9863967-2-4
  
- XIV.      *Carbondale Stations, Freight Houses, and the Carbondale Yard*  
241 pages, illustrated, ISBN: 978-0-9863967-3-1
  
- XV.        *Locomotives and Roundhouses*  
465 pages, illustrated, ISBN: 978-0-9863967-4-8
  
- XVI.       *Rolling Stock: Freight and Passenger*  
475 pages, illustrated, ISBN 978-0-9863967-5-5
  
- XVII.      *Anthracite Mining in the Lackawanna Valley in the Nineteenth Century*  
741 pages, illustrated, ISBN 978-0-9863967-6-2

- XVIII. *Breakers*  
710 pages, illustrated, ISBN 978-0-9863967-7-9
- XIX. *The Stourbridge Lion*  
432 pages, illustrated, ISBN 978-0-9863967-8-6
- XX. *The Honesdale Branch of the D&H*  
386 pages, illustrated, ISBN 978-0-9863967-9-3
- XXI. *The Anthracite Coal Strike of 1902*  
289 pages, illustrated, ISBN 978-1-5136-2662-8
- XXII *The People: the D&H, the Community*  
518 pages, illustrated, ISBN 978-1-5136-2665-9
- XXIII *The Quality of Life in the Lackawanna Valley in the Nineteenth Century*  
672 pages, illustrated, ISBN 978-1-5136-2664-2
- XXIV *The Birth and First Maturity of Industrial America*  
634 pages, illustrated, ISBN 978-1-5136-2666-6
- XXV *Delaware and Hudson Railroad, 2018*  
*Addendum I (December 31, 2018) to S. Robert Powell's Twenty-four Volume Series on the Delaware and Hudson Railroad.* 444 pages
- XXVI *Delaware and Hudson Railroad, 2019*  
*Addendum II (December 31, 2019) to S. Robert Powell's Twenty-four Volume Series on the Delaware and Hudson Railroad.* 412 pages
- XXVII *Delaware and Hudson Railroad, 2020*  
*Addendum III (December 31, 2020) to S. Robert Powell's Twenty-four Volume Series on the Delaware and Hudson Railroad.* 400 pages
- XXVIII *Delaware and Hudson Railroad, 2021*  
*Addendum IV (December 31, 2021) to S. Robert Powell's Twenty-four Volume Series on the Delaware and Hudson Railroad.* 334 pages
- XIX *Delaware and Hudson Railroad, 2022*  
*Addendum V (December 31, 2022) to S. Robert Powell's Twenty-four Volume Series on the Delaware and Hudson Railroad.* 247 pages

## B. Articles:

All of the articles about the D&H by S. Robert Powell that are listed below have been published in the *Bridge Line Historical Society Bulletin*, the premier periodical at present on the Delaware and Hudson Railroad and Canal.

1. "The Four D&H Car-Building Contests" (May 2018, p. 7)
2. "The Four Carbondale D&H Roundhouses" (June 2018, pp. 8-10)
3. "More on Owney, the Celebrated Traveling Dog" (July 2018, p. 6)
4. "D&H Challenger #1502 on the Carbondale Turntable" (September 2018, pp. 12-13, 15)
5. "How Did Owney Die?" (October 2018, p. 6)
6. "Photos of the 1925 D&H Car-Building Contest" (October 2018, pp. 12-13)
7. "The D&H Gravity Railroad: Five Configurations (Part 1)" (November 2018, pp. 11-12)
8. "The D&H Gravity Railroad: Five Configurations (Part 2)" (December 2018, pp. 12, 14)
9. "The D&H Gravity Railroad: Five Configurations (Part 3)" (January 2019, pp. 8-10)
10. "The D&H Gravity Railroad: Five Configurations (Part 4)" (February 2019, pp. 16-17, 20-21)
11. "The D&H Gravity Railroad: Five Configurations (Part 5)" (March 2019, pp. 12-14, 20)
12. "Industrial Archaeology 101: What Are We Looking At?" (April 2019, pp. 8-10). This is an article about the Honesdale and Clarksville Turnpike and the D&H Gravity Railroad.
13. "The Saratoga Express" (May 2019, pp. 7, 10)
14. "The Boston Express" (June 2019, p. 16)
15. "D&H Baseball: An Introduction" (July 2019, D&H baseball player on cover, article, pp. 16-17, 19)
16. "Roebbling's System of Anchoring the Cables on the Four D&H Aqueducts" (September 2019, pp. 16-17, 21, 28)
17. "The Birth of the D&H as a Steam Railroad" (October 2019, pp. 16-17, 19)

18. "Compression and Tension in the Four Roebling D&H Aqueducts" (November 2019, pp. 16-18, 20-21)
19. "Use of Conglomerate Rock in the D&H Canal and Gravity Railroad (Part 1)" (December 2019, pp. 16-18)
20. "Use of Conglomerate Rock in the D&H Canal and Gravity Railroad (Part 2)" (January 2020, pp. 16-18)
21. "The D&H Flat-Land Gravity Railroad" (February 2020, pp. 12-13)
22. "The Legal Battle between the D&H and the Pennsylvania Coal Company," (March 2020, pp. 16-17)
23. "Regular Passenger Service on the D&H Began in 1860" (April 2020, pp. 16-18)
24. "It Wasn't Only Anthracite Coal that Was Transported on the D&H Canal" (May 2020, pp. 15-16, 30)
25. "The Seven Photographic Series of Ludolph Hensel" (June 2020, pp.16-17, 19)
26. "The Two Trestles on the Jefferson Branch of the Erie Railroad" (July 2020, pp. 12-15, 17, 21)
27. "D&H Gravity Railroad and Mines Shut Down by Horse Epidemic in 1872" (September 2020, pp. 16-18)
28. "The Ararat Cut on the Jefferson Branch of the Erie Railroad" (October 2020, pp. 16-18)
29. "A New Door Has Now Been Opened on the History of the D&H Canal" (November 2020, pp. 14-16)
30. "The D&H, Anthracite Coal, and the Dunmore Cemetery" (December 2020, pp. 12-14, 17, 21)
31. "The D&H Gravity Railroad: 1845 Configuration--Level No. 4, Plane No. 5" (January 2021, pp. 15-17, 22)
32. "The Telegraph and the D&H" (February 2021, pp. 15-17, 35)
33. "Huckleberries and the D&H Mining and Transportation Operations" (March 2021, pp. 6-7, 15)

34. "Passenger Service on the D&H Gravity Railroad, Carbondale to Honesdale (Part I)" April 2021, pp. 15-18)
35. "Passenger Service on the D&H Gravity Railroad, Carbondale to Honesdale (Part II)" (May 2021, pp. 15-17, 19, 29)
36. "Farview Park on the Moosic Mountain on the D&H Gravity Railroad" (June 2021, pp. 1, 15-18, 45)
37. "Lake Lodore Amusement Park on the Honesdale Branch of the D&H" (July 2021, pp. 15-18, 19)
38. "*Delaware and Hudson Bulletin* Collection Donated to UAlbany Archives by Carbondale Historical Society" (September 2021, pp. 16, 18)
39. "Inclined Planes on the Delaware & Hudson Gravity Railroad and Canal" (October 2021, pp. 16-19)
40. "Maps of D&H and Pennsylvania Coal Company Operations" (November 2021, pp. 14-15)
41. "The 1824 Delaware and Hudson Canal Company Map" (December 2021, pp. 16-18)
42. "The Gravity-gauge Steam Engine *Honesdale*" (January 2022, pp. 11-12)
43. The D&H 'Assembly Line' from the Anthracite Coal Fields to Tidewater and Beyond (February 2022, pp. 15-16)
44. "D&H Coal Breakers and Collieries" (March 2022, pp. 15-17)
45. "Anthracite Coal Clarifications" (April 2022, pp. 16-18, 20-21)
46. "Coe F. Young and Horace G. Young: Father and Son: D & H Managers" (May 2022, pp. 16-18)
47. "Rollin Manville and C. Rollin Manville, Father and Son, Superintendents of the Pennsylvania Division of the D&H" (June 2022, pp. 16-18)
48. "The McMullen Family: D&H Pennsylvania Division Managers" (July 2022, pp. 16-18)
49. "Thomas Dickson, Empire Builder and Gentleman (Part 1)" (September 2022, pp. 16-19)

50. "Thomas Dickson, Empire Builder and Gentleman (Part 2)" (October 2022, pp. 15-16, 18)
51. "Thomas Orchard: Architect and Master Car Builder for the D&H" (November 2022, pp. 16-17, 23)
52. "White Pine and White Oak Lumber in Roebling's Four D&H Aqueducts" (December 2022, pp. 16-17, 19)
53. "Waterpower on the D&H Gravity Railroad" (January 2023, pp. 16-17, 20)
54. "The Lease Question, 1873-1874" (February 2023)
55. "Building a Railroad in the Wilderness, 1827-1829" (March 2023)
- "Benjamin Wright and John Jervis and the Delaware and Hudson Canal and Gravity Railroad"  
(published on Internet Archive on February 5, 2022)
- "The Switchback at Panther Bluffs on the Honesdale Branch of the Delaware and Hudson Railroad"  
(published on Internet Archive on May 25, 2022)

All of the items listed in this D&H Bibliography can be read on Internet Archive.



Given below is a list of the 105 D&H items that we have collected in the course of the calendar year 2022 for *Addendum V*:

## Table of Contents

1. Photo of D&H Shark at Belden Hill Tunnel, Tunnel, NY, August 1975. Photo posted on Facebook, December 4, 2021, in the Delaware and Hudson Railroad group by Anthony Stillitano
2. Photo of NYO&W accident at the foot of Plane No. 21 on the D&H Gravity Railroad
3. Photo of Starrucca Viaduct, 1872, posted by John Cudo in NEPA Railfans group from *Remember Susquehanna*
4. Good material on anthracite coal from Steve Wagner, *BLHS Bulletin*, December 2021, pp. 26-27
5. D&H Honesdale Branch timetable, October 21, 1900, donated to the Carbondale Historical Society by Carl Reichart and Jason Smith, Honesdale, December 30, 2021 and January 31, 2022
6. The Hudson Coal Company Shop Orders / Invoices, Providence Repair Shops. About 2,000 invoices that were de-accessioned by the Wayne County Historical Society, and donated to the Carbondale Historical Society by Jason Smith, on December 30, 2021
7. Photo of Plane No. 13, Honesdale, that was downloaded from E-Bay on December 31, 2021
8. Very interesting data about Lehigh Coal Company Engine No. 126 from Mike Bischak, January 4, 2022
9. More on John Jervis (from the Erie Canal Museum website), January 11, 2022
10. Avondale Mine Disaster and Knox Mine Disaster notes, January 15, 2022
11. Photo of Leonor Loree's private rail car, posted on Facebook on January 20, 2022
12. Presentation by Steve Pennington on Benjamin Wright at the Erie Canal Museum in Syracuse in January 2022
13. Photo by Arthur House titled "Dropping the Pusher" that was posted by Arthur House on Facebook, January 24, 2022
14. Six very choice D&H/mining photos found on Facebook on January 25, 2022, and downloaded for the record and for possible future use
15. Oil painting, *Shepherd's Cook*, by Lou Davis, that was donated to the Carbondale Historical Society on April 28, 2014 by John Vojick
16. Photo of the Cascade Wye that was posted on Facebook by George C. Corey, February 4, 2022
17. Photo from *Remember Susquehanna* of Starrucca Viaduct painting by Joseph Phalon that was posted on Facebook, February 7, 2022 by John Cudo
18. "The D&H 'Assembly Line' from the Anthracite Coal Fields to Tidewater and Beyond" by S. Robert Powell; article published in the February 2022 *Bridge Line Historical Society Bulletin*, pp. 15-16
19. D&H Engine No. 1016, in Carbondale, August 1, 1940; photo posted on Facebook on February 9, 2022
20. D&H Freight Line invoice, posted on Facebook, February 9, 2022
21. Two comments, posted on Facebook, on February 10, 2022, about the D&H telegraph at High Falls, NY

22. Photo of *Little Starrucca*, posted by John Ackley in *Remember Susquehanna* Facebook group and reposted by John Cudo in the *D&H Railroad* Facebook group, February 13, 2022
23. Photo of the Carbondale mine fire and the NYO&W, posted by Walter Kierzkowski, February 16, 2022, on Facebook
24. Photo of Duffy's Field, posted on Facebook by Tony Hodun, February 16, 2022; also photo of Duffy's Field posted by Walter Kierzkowski on February 18, 2022, on Facebook
25. Photo of *Nineveh Junction* posted on Facebook by Lisa Ellison on March 3, 2022
26. "The Use of Inclined Planes on the D&H Gravity Railroad and Canal" by S. Robert Powell. This article was published in the October 2021 issue, pp.16-19, of the *Bridge Line Historical Society Bulletin*.
27. "The Gravity-gauge Steam Locomotive "Honesdale" by S. Robert Powell. This article was published in the January 2022 issue of the *Bridge Line Historical Society Bulletin*, pp.11-12
- 28." D&H Coal Breakers and Collieries" by S. Robert Powell. This article was published in the March 2022 issue, pp. 15-17, of the *Bridge Line Historical Society Bulletin*.
29. Fossils, in the collection of the Carbondale Historical Society, that were found in anthracite coal mined in the Carbondale area
30. Photo of D&H Train in Carbondale, April 19, 1976, that was posted by Don Hodun in the Delaware and Hudson Facebook group on March 19, 2022
31. Photo of D&H Roundhouse (Kingston? Wilkes-Barre?) that was posted by John Cudo on Facebook, March 22, 2022
32. In March 2022, the Carbondale Historical Society was asked by the Lackawanna and Wyoming Valley Railroad chapter ("The Laurel Line") of the NRHS to submit a photograph for the 2023 L&WVR calendar. S. R. Powell submitted the photograph shown here to Norm Brauer on March 26, 2022
33. Photo by Jim Shaughnessy of the D&H *Laurentian* that was posted on Facebook in the Delaware and Hudson group by Gordon Smith on March 30, 2022
34. "Anthracite Coal Clarifications" by S. Robert Powell; this article was published in the *BLHS Bulletin*, April 2022, pp. 16-18, 20-21
35. What are we looking at in this photo that was posted on Facebook on April 9, 2022, in the Delaware and Hudson Facebook group
36. D&H Safe (perhaps) offered for sale on Facebook on April 15, 2022
37. Newspaper article about a blind coal miner, Felix Slavin, and his assistant, John Douherty; clipping given by Julie Esty to S. Robert Powell on April 22, 2022
38. Photo of Little Starrucca, posted on April 26, 2022 by John Cudo in D&H Facebook group (photo originally posted on *Remember Susquehanna Pa.* by Scott Fisher)
39. Four photos of Carbondale's D&H Caboose No. 35964 that were posted on Facebook on April 26, 2022 by Eastern PA & South Jersey Railfans, Michael Russ
40. "Coe F. Young and Horace G. Young: Father and Son D&H Managers" by S. Robert Powell that was published in the *Bridge Line Historical Society Bulletin*, May 2022, pp. 16-18
41. D&H Caboose No. 35708 in Union Dale, PA, photo posted on Facebook, May 3, 2022
42. Photo of wire rope fragment found in the Plane No. 14 area by Scott Bennett, May 5, 2022
43. D&H Pennsylvania Division employee rosters for 1925, 1926, and 1928

44. Photo of D&H No. 5017 in Alan G. Dustin collection at Carbondale Historical Society
45. Photo of D&H Challenger No. 1514 in Alan G. Dustin collection at Carbondale Historical Society; photo posted in D&H Railroad Facebook group on May 16, 2022
46. "Cannon" (a 16mm. coastal defense gun) in the Carbondale D&H yard, original print of this photo is in the collection of the Carbondale Historical Society
47. More on Alan G. Dustin (see Nos. 44 and 45, above)
48. "Rollin Manville and C. Rollin Manville, Father and Son, Superintendents of the Pennsylvania Division of the D&H" (*BLHS Bulletin*, June 2022, pp. 16-18)
49. More information about D&H No. 179 from Breezy Bischak, June 2, 2022
50. Derailment at Starrucca Viaduct, July 11, 1964
51. "The McMullen Family: D&H Pennsylvania Division Managers" by S. Robert Powell (published in the July 2022 issue of the *Bridge Line Historical Society Bulletin*, pp. 16-18; also in that same issue, there is a "Letter" to the Mail Car from SRP on page 12)
52. Coal breaker in Hawley, PA; correspondence with Peter Becker from the *Tri-County Weekly*, June 16, 2022
53. Photos of an accident at Lanesboro, July 11, 1964; posted on June 18, 2022 on Facebook
54. Photo taken on September 22, 1972 by Rich Pennisi of four D&H Diesels, heading south through Carbondale; photo posted by Rich Pennisi in the D&H Group on Facebook on June 24, 2002
55. O&W and mine fire photo posted on Facebook, June 29, 2022, by Walter Kierzkowski
56. D&H Float in Carbondale Centennial Parade, 1951. Photo in the collection of the Carbondale Historical Society
57. O&W photo posted on Facebook by Walter Kierzkowski on July 4, 2022; D&H tracks in the background
58. Stock pens on the O&W in Mayfield; photo posted on Facebook by Walter Kierzkowski on July 9, 2022
59. *Delaware & Hudson Challengers and Northerns* by Ed Crist and John Krause. Post by SRP on Facebook in D&H group on July 19, 2022
60. Photo of engine exiting Carbondale Roundhouse; photo posted on Facebook by Robert Wanner on July 24, 2022
61. Dimock's Grove, Waymart: Gravity rail found there by Tim Gombita, July 2022
62. Farview Park map superimposed on 2022 Google Map by Tim Gombita, July 2022
63. Junction of the D&H and the Wilkes-Barre Connecting Railroad, photo by Rich Pennisi, posted in the D&H Facebook group, August 7, 2022
64. Two new Stourbridge Lion photographs emerge on Stourbridge Lion Day (August 8), 2022, and are posted on Facebook in the D&H Railroad group
65. Valley Road timetable, posted by Will Davis in D&H Facebook group, August 15, 2022
66. D&H poster that was posted by Lance Erickson in the D&H Facebook group, August 15, 2022
67. Photos of four D&H-related PHMC Historical Markers in Wilkes-Barre that were posted on Facebook, August 29, 2022

68. On the D&H Group's Facebook page, on September 1, 2022, Bert Prohaska asked: "Any information or opinions on the authenticity and provenance of this sign [Lackawanna Coal The D&H) displayed at LaSalle The Image Makers Clothing in Scranton?"
69. *Delaware & Hudson Challengers and Northerns* by Ed Crist; post by SRP on September 4, 2022, in the D&H Facebook group
70. DL&W material donated to the DL&W Historical Society by the Carbondale Historical Society, September 2, 2022
71. Hudson Coal Dealers: C. N. Hodgdon Company, Berlin, NH, and Lawrence S. Risley, Oxford, NY. Dealers' cards, found in CHS&M collection, September 10, 2022
72. D&H 1895 Gravity Railroad map volume; offered for sale on Facebook, September 11, 2022
73. "Delaware and Hudson Bulletin Collection Donated to UAlbany Archives by Carbondale Historical Society" (*Bridge Line Historical Society Bulletin*, September 2021, pp. 16, 18)
74. "Maps of D&H and Pennsylvania Coal Company Operations" (*Bridge Line Historical Society Bulletin*, November 2021, pp. 14-15)
75. World War I patriotic/fund raising initiatives; Cody Gonsauls/SRP conversation, September 24, 2022
76. Belden Hill Tunnel, photo posted on October 4, 2022, in the D&H Group on Facebook by Mike Moss
77. Carbondale Mine Fire photo, in the collection of Cody Gonsauls, Childs, PA. Photo made available for presentation here on October 4, 2022
78. "The First Underground Mine Opened in Carbondale-June 1831" postal cachet; in the collection of Cody Gonsauls, and made available for presentation here on October 4, 2022
79. *Lackawanna & Wyoming Valley Railway Historical Society and Delaware and Hudson Railroad 2023 Calendar*
80. Gravity Railroad Day, October 9, 2022
81. D&H Station and Water Tower, Waymart, PA, April 19, 1917
82. Conglomerate rock in the northern coal field of Pennsylvania
83. Panther Creek Nature Preserve
84. Wm. Cooke & Co., Scranton /Cliff Works MACHINE SHOP and Foundry
85. Mrs. Sarah Gunsauls Walker and the First Gravity Train around Shepherd's Crook
86. Central Bridge, NY, *D&H Ledger 1876-1877, Freight Received*; now in the collection of Cody Gonsauls, Childs, PA
87. "Thomas Dickson, D&H Empire Builder and Gentleman (Part 1)" by S. Robert Powell. This article was published in the September 2022 issue (pp 16-19) of the *Bridge Line Historical Society Bulletin*.
88. The article "Thomas Dickson, Empire Builder and Gentleman Part 2" by S. Robert Powell was published in the October 2022 issue of the *Bridge Line Historical Society Bulletin*, pp.15-16, 18
89. The article "Thomas Orchard: Architect and Master Car Builder for the D&H" by S. Robert Powell was published in the November 2022 issue of the *Bridge Line Historical Society Bulletin*, pp. 16-17, 23

90. The article “White Pine and White Oak Lumber in Roebling’s Four D&H Aqueducts” by S. Robert Powell was published in the December 2022 issue of the *Bridge Line Historical Society Bulletin*, pp. 16-17, 19
91. Very nice photo of D&H No. 930, as posted on the D&H Railroad page on Facebook, November 15, 2022
92. Historical marker unveiled on November 19, 2022 at Oneonta roundhouse site
93. S. Robert Powell’s review of the 2023 L&WVR Calendar + theft of SRP photo files by known unscrupulous characters
94. SRP posted on Facebook a photo of the front cover of “The Railroad Roster January-June 1926 Train Service Employees AND TELEGRAPHERS” during the week of November 16, 2022; 50 “likes” in two days
95. Lanesboro viaduct photo, posted on Facebook in the D&H Railroad group, on November 25, 2022 by RR Trax Studios
96. Photo of D&H Fan trip 1975, posted by Jason Booser on Facebook, December 4, 2022
97. D&H First Aid kit, photos posted by Paul Hildreth on Facebook D&H Railroad group, December 6, 2022
98. Photo of A&S railroad lantern, posted in D&H group on Facebook by Ben Martin, December 7, 2022
99. “Waterpower on the D&H Gravity Railroad” by S. Robert Powell, *Bridge Line Historical Society Bulletin*, January 2023, pp. 16-17, 20
100. Rare photo of D&HCCo No.163 (?) that was posted on Facebook, December 14, 2022, in the Delaware and Hudson Railroad group by Burdock Gordon
101. *Building a Railroad in the Wilderness, 1827-1829*: This article by SRP will be published in the March 2023 issue of the *Bridge Line Historical Society Bulletin*:
102. PA Canal Society visit to northeastern Pennsylvania, Fall 2022
103. “The Chapel of the Ruins at D&H Gravity Plane No. 14, with Scott B. Bennett, Chaplain”; legal notice in newspaper found by Jane Varcoe in December 2022
104. D&H ticket No. 17543, April 16, 1927, issued to John B. Jordan; ticket found in the collection of the Carbondale Historical Society on December 17, 2022
105. Photo of Whitehall Roundhouse and D&H yard; posted on Facebook D&H group, December 18, Burdock Gordon

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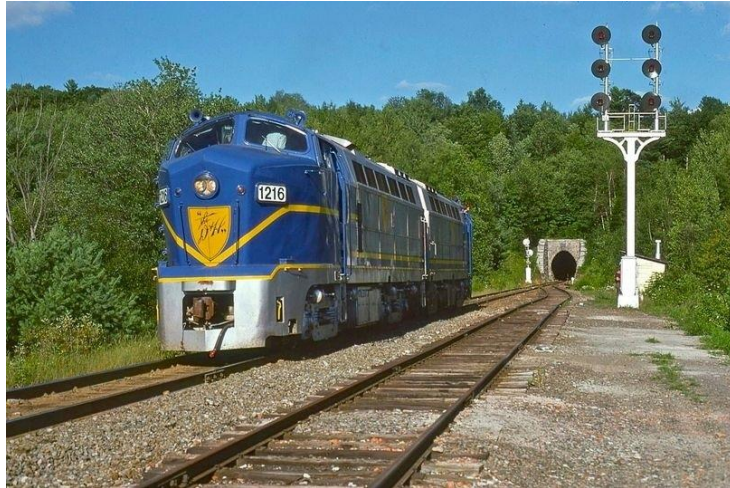
# *Addendum V*

2022

by S. Robert Powell

One hundred and five items that “surfaced” or were created/written in 2022 about the Delaware and Hudson Railroad. All of these items are important components of the “always growing” body of data about the D&H that must be saved/incorporated into S. Robert Powell’s 24-volume series on the Delaware and Hudson Railroad.

1. Beautiful photo of a D&H Shark, No. 1216, at Belden Hill Tunnel, Tunnel, NY, August 1975. Posted on Facebook, December 4, 2021, in the Delaware and Hudson Railroad group by Anthony Stillittano:



2. NYO&W accident at the foot of Plane No. 21 in Archbald, PA; e-mail received, December 6, 2021 from Robert Earle:



From: **Squarespace** <[form-submission@squarespace.info](mailto:form-submission@squarespace.info)>

Date: Sat, Dec 4, 2021 at 3:33 PM

Subject: Form Submission - Contact - Peckville, Pennsylvania

To: <[carbondalehistorical@gmail.com](mailto:carbondalehistorical@gmail.com)>

**Name:** Robert Earle

**Email Address:** [earleb@hancock.net](mailto:earleb@hancock.net)

**Subject:** Peckville, Pennsylvania

**Message:** I am looking to contact Robert Powell in regards to a picture I recently scanned at the Ontario and Western archives. It shows an Ontario and Western steam engine derailed onto gravity railroad tracks (?) at this location.

Thank you,

Robert Earle

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From: "S. Robert Powell" <[srp18407@gmail.com](mailto:srp18407@gmail.com)>

To: [earleb@hancock.net](mailto:earleb@hancock.net)

Sent: Monday, December 6, 2021 9:37:52 AM

Subject: Re: Form Submission - Contact - Peckville, Pennsylvania

December 6

Robert:

This is Robert Powell. Send me a scan of the photo and I'll do my best to identify the site in question.

Robert

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On Mon, Dec 6, 2021 at 5:48 PM Bob Earle <[earleb@hancock.net](mailto:earleb@hancock.net)> wrote:

The attached image, APe359, came from our "Wreck Folders". On the back it has the following information:

“NYO&W Engine 10 Dec. 4, 1898 6:00 pm Peckville, Pa.”

From what I can determine from O&W rosters the engine appears to be correct and would have been in service on this date. Note that there is both a "gravity" railroad train that it is resting on below and possibly a bridge over the O&W by the same railroad. Any help would be appreciated.

Thanks,

Bob Earle

OWRHS Archives

December 6, 2021, 7:28 P.M.

Bob:

Interesting photograph. Lots going on in this photo, which was taken in Archbald, at the foot of Plane No. 21 (also called "C" plane). The empty D&H Gravity cars on the left are being pulled up Plane No. 21 by a stationary engine at the head of the Plane. The foot of this plane was on the Eastern bank of the Lackawanna river, and after passing under the O&W tracks near the base of the O&W trestle, the plane crossed the river on a slanted bridge and the cars were pulled to the head of the plane which was located about 1,000 feet East of the intersection of Harrison and Delaware Streets, just before the railroad bed crossed the dirt road leading to the Archbald Athletic Club Field. This plane was originally run by a water wheel that was powered by a canal running from White Oak Run parallel to the Lackawanna River. The canal was abandoned in 1865 and a steam engine was placed at the head of Plane No. 21. The canal was later filled in with earth, stone and cinders and the roadbed of the New York, Ontario and Western Railway thereafter ran on its course.

Robert

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On Mon, Dec 6, 2021 at 9:47 PM Bob Earle <[earleb@hancock.net](mailto:earleb@hancock.net)> wrote:

Thanks for your quick reply. So our location of Peckville is incorrect. Do you know what the function of the bridge on the upper right of the picture (above and to the right of the camelback) is?

Thanks again,

Bob

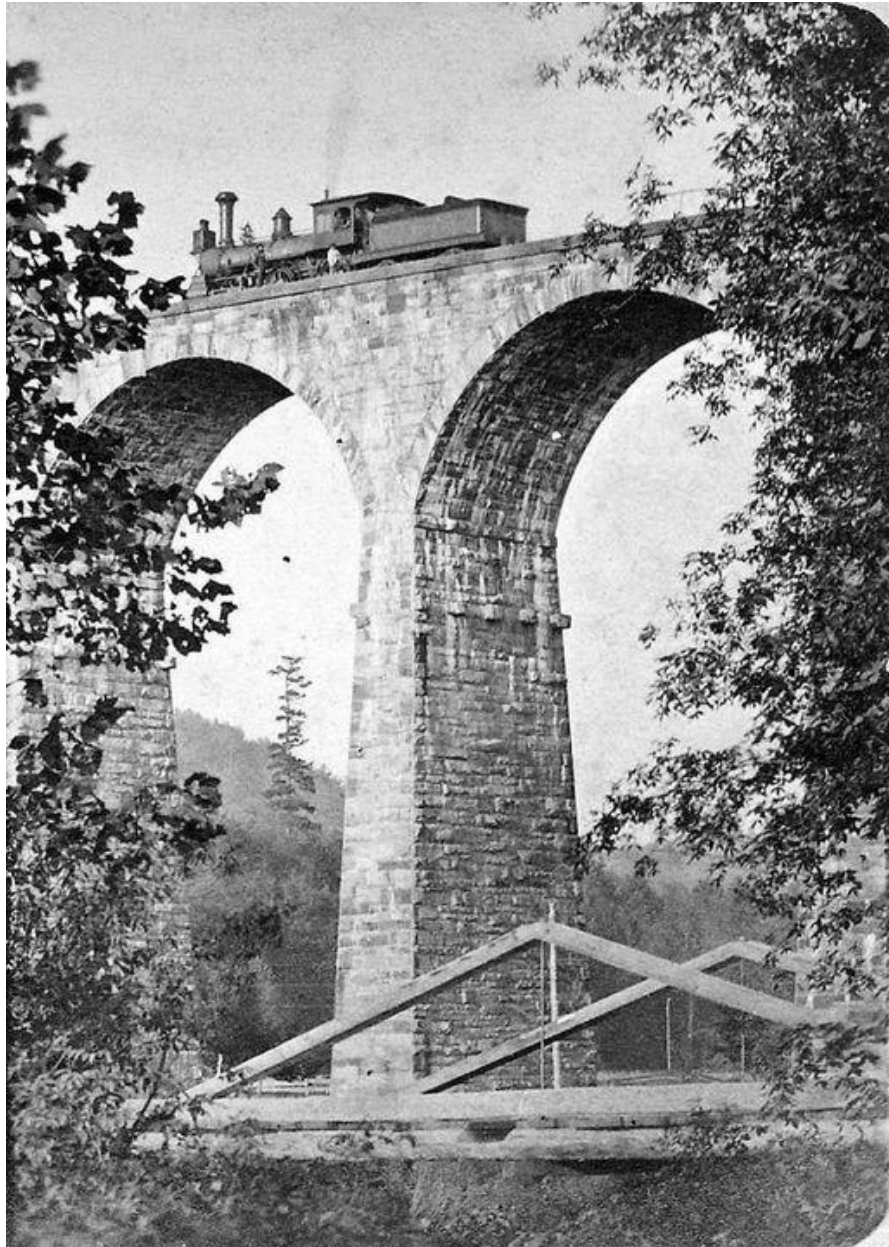
-----  
**S. Robert Powell** <[srp18407@gmail.com](mailto:srp18407@gmail.com)>

9:4  
1  
AM

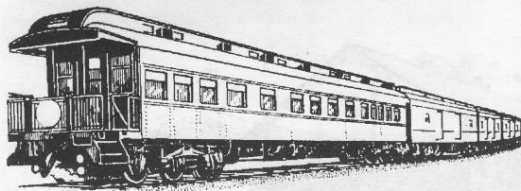
to Bob December 7

Peckville is just a short distance south of this site, which is in Archbald. The bridge in the upper right of the photo is the Munroe Street bridge over the former canal and then the Lackawanna River.

3. Starrucca Viaduct, 1872, detail of a photo that was posted on December 6, 2021, by John Cudo, in NEPA Railfans group, from *Remember Susquehanna: Starrucca Viaduct 1872*:



4. Good material on anthracite coal from Steve Wagner, in the *Bridge Line Historical Society Bulletin*, December 2021, pp. 26-27. See especially Column 3 on page 26:



## Open Platform Observations

by Steve Wagner

### CCLXCVII: "Be-leaf in Yourself"

The subtitle was part of a message posted on a small signboard beside a driveway to Maynard High School: "Autumn Is Here - Be-leaf in Yourself!" I wonder who was being a clever punster when many people were starting to focus on monsters.

### Our November issue

First, I was glad to see tributes to **Jim Lafayette** from several other BLHS members who knew him far longer and better than I did.

**Howard Hontz** as usual provided authoritative information based on his long experience working for the D&H. **Evan Eisenhandler's** column once again is the sort-of first hand account that only real railroaders can provide.

The "For the Record" piece by **S. Robert Powell, Ph.D.** is a most valuable listing of maps of railroads in northeastern Pennsylvania's anthracite region. The information he provided for the caption accompanying **Tim Richmond's** photo of a hunk of anthracite engraved for presentation to Laurie Enders was fascinating. I had to look her up; she was a popular "cowgirl" singer on a TV show in the early 1950s.

The **Rev. Walter F. Smith** is right that there still are trains in New England, and he does know how to find them. I know **Harrison Smith** can do that in many places, including traditional D&H trackage in New York State. **Frank Dutton** is able to visit parts of our favorite railroad by walking from his home.

**Dick Silber's** "Traction Action" had plenty on electric railways. The book on trolleys in Schenectady he wrote about is a 105-page 11x8½ in. paperback with 98 images. I owe him an apology for not managing to put a good deal of info on model trains he sent me into this month's "Modeling Matters" column.

**Doug Barron** as always made important

contributions to the issue.

**Jim Bachorz's** correction of what I wrote about titanium metal not being used in aircraft during World War II is doubtless correct; he knows the subject much better than I do.

I was also glad to see Jim's comment about the spelling of "Plattsburg" without a final "h" in a piece in "Bridge Line Memories" that had appeared in the **New York Times** in 1903. But, after fairly extensive on-line research, I am convinced that the "burgh" version isn't Dutch but instead, as in Pittsburgh, the version used by Scots in the Lowlands near Edinburgh, which, but the way, is pronounced like the English Edinboro. Other English versions of the German root meaning "fort" are "borough", "boro" and "bury"; the French is "bourg". No place in the Netherlands today uses the "burgh" spelling rather than the "burg" used in German. "Burg" is the ending used for many places in South Africa named by whites who spoke and speak Afrikaans, which is based on Dutch; the exception is **Queensburgh**, clearly named by people from Britain. **St. Petersburg** in Russia was named by Peter the Great, who had studied shipbuilding in the Netherlands; it and other names in Russia are always transliterated from the Cyrillic alphabet to the Latin one as "burg". (While Russia fought Germany during World War I the city was given the Slavic name of Petrograd; after the Bolshevik Revolution it became Leningrad. The original name was restored more recently.) The Swedish version is "borg", but Sweden's second largest city, Goteborg, originally settled by Dutch merchants, is also called Gothenburg. (Note that the German "Berg", as in Nurnberg, usually Anglicized as Nuremberg, means "mountain".)

[However, I would still like to note that much of the D&H area has Dutch roots, many from the 17th century. The Capital District has dozens of Dutch names....JB]

### D&H Anthracite

This section could also be entitled "Hudson Coal Co." or "Lackawanna Anthracite", which might confuse some readers not familiar with northeastern Pennsyl-

vania.

The Hepburn Act passed by Congress in 1906 forbade railroads to transport coal from mines they owned across state lines. However, in 1909 the U.S. Supreme Court ruled that railroad-owned mining companies could sell the coal they produced to their railroads for interstate shipment. The Delaware & Hudson promptly formed the Hudson Coal Company to own and operate the mines, and continued to haul D&H coal from Pennsylvania to New York, Vermont and Canada, and to interchange it to other roads for shipment to New England (mostly via the Boston & Maine), and elsewhere via lines including the Erie and, notably, the Pennsylvania. Orange and black circular heralds with "The D&H" in black script on the orange center and either Hudson Coal or Lackawanna Anthracite in orange block letters on a black ring surrounding it.

The Lackawanna referred to the river valley where the mines were located, and the county including Scranton, where many more were located. The Delaware, Lackawanna & Western, headquartered in Scranton, and known as the Lackawanna. It advertised as "The Road of Anthracite" in famous pre-World War I ads featuring "Phoebe Snow", whose dress stayed white while riding the Lackawanna. It organized the Glen Alden Company to take over its mines; they shipped what was advertised as Blue Coal. The D&H for a time put orange and black cardboard tags in its coal, and for a while, sprayed dots of orange paint on some; the competing DL&W / Glen Alden used blue paint, while the Reading used red. Other competitors in the anthracite production and hauling business included the Lehigh Valley and the Lehigh & New England, whose "fried egg" herald derived from the pioneering Old Company Lehigh, which like the D&H had started as a canal company.

As far as I have been able to learn, few retail coal dealers stocked more than one brand of coal and had signage only for one of the suppliers. How the Adams Fireplace Shop at Fresh Pond Circle (in Massachusetts) came to have colorful steel enameled signs for at least four of them I have no idea.

I could kick myself for not trying to buy the D&H sign from them before they all disappeared. Such signs have been sold at high prices on eBay. I've never bought one, but I have bought smaller and less expensive D&H anthracite marketing materials, many of which I've recently found

Hepburn Act: 1909, railroads couldn't transport coal from mines that they owned across state lines. In 1909 Supreme Court said that railroad-owned mining companies could sell the coal that they produced to their railroads for interstate shipment. The D&H formed the Hudson Coal Company to own and operate their mines and continued to haul D&H coal from PA to NY, VT and Canada and to interchange it to other roads for shipment to New England and elsewhere.

Note: From 1909 on: the Glen Alden Coal Company owned the DL&W mines; the Hudson Coal Company owned the D&H mines

5. Honesdale Branch timetable October 21, 1900. A copy of this timetable was made available to the Carbondale Historical Society, by Carl Reichart and Jason Smith, Honesdale, on December 30, 2021 and January 31, 2022:

No. 5.		THE DELAWARE <i>and</i> HUDSON										Railroad Department--HONESDALE BRANCH--Time		
For the Government and Information of Employees only.												Takes Effect Sunday, October 21, 1900, at 12:01 a. m.		
Minimum Time of East Bound Freight Trains between stations. Minutes	EAST BOUND TRAINS								DISTANCE FROM CARBONDALE.	STATIONS.		DISTANCE BETWEEN STATIONS.		
	Second Class		First Class							LEAVE	ARRIVE			
	154	152	106	102	88	86	84	82						
	Daily Ex Sun.	Daily Ex Sun.	Sunday Only	Sunday Only	Daily Ex Sun.	Daily Ex Sun.	Daily Ex Sun.	Daily Ex Sun.						
	Way Fr't P. M.	Way Fr't A. M.	Pass. P. M.	Pass. A. M.	Pass. P. M.	Pass. P. M.	Pass. A. M.	Pass. A. M.						
									0 90	Carbondale Junction	(Erie)	0.90		
0	2.42	9.05		4.35	9.40	6.13	3.15	11.05	7.22	0.00	CARBONDALE		0.00	
3	2.45	9.08		4.37	9.42	6.15	3.17	11.07	7.24	0.51	Lookout Junc. Honesdale Branch		0.51	
9	2.53	9.16		4.41	9.46	6.19	3.21	11.11	7.28	2.30	Bushwick	Passing Branch	1.79	
10	3.01	9.24		f 4.45	f 9.50	f 6.23	f 3.25	f 11.15	f 7.32	4.24	LINCOLN AVENUE		1.94	
4	3.04	9.27		4.47	9.52	6.25	3.27	11.17	7.34	5.01	Racket Brook	Passing Siding	0.77	
4	f 3.07	f 9.30		f 4.49	f 9.54	f 6.27	f 3.29	f 11.19	f 7.36	5.69	WHITES		0.68	
7	3.13 3.18	9.36 9.41		s 4.52 4.56	s 9.57 10.01	s 6.30 6.34	s 3.32 3.36	s 11.22 11.26	s 7.39 7.43	7.00	PANTHER BLUFFS	Switchback	1.31	
20	3.36 3.51	9.58		5.05	10.10	6.43	3.45	11.35	7.52	10.94	Farview Junction	Passing Branch	3.94	
2	f 3.54	f 10.01		f 5.06	f 10.11	f 6.44	f 3.46	f 11.36	f 7.53	11.35	FARVIEW		0.41	
14	4.06	10.13								14.16	Swackhammer	Short Spur	2.81	
5	4.10	10.17		5.15	10.20	6.53	3.55	11.45	8.02	15.10	Munson	Passing Siding	0.94	
8				5.18	10.23	6.56	3.58	11.48	8.05	17.00	LAKE LODORE		1.90	
5	s 4.21	s 10.25		s 5.21	s 10.26	s 6.59	s 4.01	s 11.51	s 8.08	17.65	WAYMART	Passing Branch Passing Siding	0.65	
14	4.32	10.36		f 5.27	f 10.32	f 7.05	f 4.07	f 11.57	f 8.14	20.49	KEENE		2.84	
6	4.39	10.43		f 5.30	f 10.35	f 7.08	f 4.10	f 12.00	f 8.17	21.70	STEENE	Short Spur	1.21	
9	4.46	10.50		f 5.34	f 10.39	f 7.12	f 4.14	f 12.04	f 8.21	23.53	PROMPTON		1.83	
3	4.48	10.52						12.06		24.11	Farview Junction	Passing Branch	0.58	
4	4.52	10.56		f 5.38	f 10.43	f 7.16	f 4.18	f 12.08	f 8.25	24.92	FORZENIA		0.81	
2	4.54	10.58								25.31	Gulls	Passing Branch	0.39	
4	f 4.57	f 11.01		f 5.41	f 10.46	f 7.19	f 4.21	f 12.11	f 8.28	25.97	SEELYVILLE		0.66	
4	5.00	11.04								26.61	Blandin	Passing Branch	0.64	
4	s 5.03	s 11.07		s 5.45	s 10.50	s 7.23	s 4.25	s 12.15	s 8.32	27.30	HONESDALE		0.69	
										28.13	Honesdale Junction	(Erie)	0.83	
	P. M.	A. M.		P. M.	A. M.	P. M.	P. M.	P. M.	A. M.		ARRIVE	LEAVE		
	154	152		106	102	88	86	84	82					

# ARE and HUDSON COMPANY.


No. 5.

Department--HONESDALE BRANCH--Time Table.

Takes Effect Sunday, October 21, 1900, at 12:01 a. m.


Superseding Time Table No. 4, Dated October 7, 1900.


DISTANCE FROM CARBONDALE.	STATIONS.	DISTANCE BETWEEN STATIONS.	WEST BOUND TRAINS										Minimum Time of West Bound Freight Trains between stations. Minutes	
			First Class						Second Class					
			81	83	85	87	101	105		151	153			
			Daily Ex Sun	Daily Ex Sun	Daily Ex Sun	Daily Ex Sun	Sunday Only	Sunday Only		Daily Ex Sun	Daily Ex Sun			
			Pass.	Pass.	Pass.	Pass.	Pass.	Pass.		Way Fr't	Way Fr't			
			A. M.	P. M.	P. M.	P. M.	P. M.	P. M.		A. M.	P. M.			
0 90	Carbondale Junction (Erie)	0.90												Minutes
0.00	CARBONDALE	0.00	s 8.43	s 12.26	s 4.16	s 6.47	s 12.24	s 7.45		s 8.10	s 2.05			3
0.51	Lookout Junc. Honesdale Branch	0.51	8.41	12.24	4.14	6.45	12.22	7.43		8.07	2.01			9
2.30	Bushwick Passing Branch	1.79	8.37	12.20	4.10	6.41	12.18	7.39		7 59	1.50			10
4.24	LINCOLN AVENUE	1.94	s 8.33	s 12.16	s 4.06	s 6.37	s 12.14	s 7.35		7.51	1.42			4
5.01	Racket Brook Passing Siding	0.77	8.30	12.13	4.03	6.34	12.11	7.32		7.48	1.39			4
5.69	WHITES	0.68	f 8.29	f 12.12	f 4.02	f 6.33	f 12.10	f 7.31		f 7.45	f 1.36			7
7.00	PANTHER BLUFFS Switchback	1.31	s 8.26	s 12.09	s 3.59	s 6.30	s 12.07	s 7.28		7.39	1.30			20
			s 8.22	s 12.05	s 3.55	s 6.24	s 12.03	s 7.24		7.32	1.25			
10.94	Farview Junction Passing Branch	3.94	8 12	11.55	3.45	6.14	11.52	7.13		7.15	1.08			2
					3.43									
11.35	FARVIEW	0.41	f 8.11	f 11.54	f 3.42	f 6.13	f 11.51	f 7.12		f 7.12	f 1.05			14
14.16	Swackhammer Short Spur	2.81								7.00	12.53			5
15.10	Munson Passing Siding	0.94	8.02	11.45	3.33	6.04	11.42	7.03		6.56	12.49			8
			8.00	11.43										
17.00	LAKE LODORE	1.90	7.57	11.40	3.30	6.01	11.38	6.59						5
17.65	WAYMART Passing Branch	0.65	s 7.55	s 11.38	s 3.28	s 5.59	s 11.36	s 6.57		s 6.45	s 12.38			14
	Passing Siding									s 6.42	s 12.33			
20.49	KEENE	2.84	f 7.49	f 11.32	f 3.22	f 5.53	f 11.30	f 6.51		6.30	12.21			6
21.70	STEENE Short Spur	1.21	f 7.46	f 11.29	f 3.19	f 5.50	f 11.27	f 6.48		6.24	12.15			9
23.53	PROMPTON	1.83	f 7.42	f 11.25	f 3.15	f 5.46	f 11.23	f 6.44		f 6.17	f 12.08			3
24.11	Farview Junction Passing Branch	0.58								6.15	12.06			4
										12.01				
24 92	FORBENIA	0.81	f 7.38	f 11.21	f 3.11	f 5.42	f 11.19	f 6.40		6.11	11.57			2
25 31	Gills Passing Branch	0.39								6.09	11.55			4
25.97	SEELYVILLE	0.66	f 7.35	f 11.18	f 3.08	f 5.39	f 11.16	f 6.37		f 6.06	f 11.52			4
26.61	Blandin Passing Branch	0.64								6.03	11.49			4
27.30	HONESDALE	0 69	7.31	11.14	3.04	5.35	11.12	6.33		6.00	11.46			0
28.13	Honesdale Junction (Erie)	0.83												
	ARRIVE		A. M.	A. M.	P. M.	P. M.	A. M.	P. M.		A. M.	A. M.			
	LEAVE		81	83	85	87	101	105		151	153			


 East bound Trains have the absolute right of track over West bound Trains of the same class.


s indicates regular stop.


f " flag station.

 This Company reserves the right to omit the Stop of any train at any Station when there are no passengers to be taken or delivered.

 Erie Railroad first class trains will have no rights over or against Delaware and Hudson Railroad first class trains.

 First class trains of the Honesdale Branch must keep entirely out of the way of First class trains of the Main Line.

 Trains will not stop at No. 5, No. 17, (Hubbard's), or at any other point not indicated on the Time Table.

 At Panther Bluffs' switchback, the outside, or westerly track, is the main track. The inside, or easterly track is a passing siding.

That part of Rule 58, referring to grade crossings, and of Rule 59, referring to Yard limits, of the Book of Instructions, will not be enforced. But all trains must approach grade crossings, and yard limits, under full control, prepared to stop before reaching them should the signals be against them, or the way not clear.

All first class trains will register at Honesdale and Carbondale. Second-class and extra trains will register at Honesdale, Farview, and Yardmaster's Office, Carbondale.

### SPECIAL INSTRUCTIONS.

1. Telegraph Operators MUST report the arrival and departure of all trains to the Superintendent's Office.

2. Engineers must run their trains as nearly to time as possible; must cause the bell to be rung at least eighty (80) rods before arriving at any road-crossing, and to be continued until the engine has passed it.

3. If an accident happens to a train, the Conductor must immediately take measures to communicate with this office. A Conductor of a passenger train may command the services of any freight or coal train, or hand car, on the road, either to forward his own passengers, or to carry a

H. G. YOUNG, Second Vice President,  
Albany, N. Y.

## ERIE RAILROAD TRAINS.

EAST BOUND.				STATIONS		WEST BOUND.			
First Class.						First Class.			
142	108	130	138			117	101	127	143
Sunday Only	Daily Ex Sun	Daily Ex Sun	Daily Ex Sun			Daily Ex Sun	Daily Ex Sun	Daily Ex Sun	Sunday Only
P. M.	P. M.	P. M.	A. M.	Leave	Arrive	A. M.	P. M.	P. M.	P. M.
3.12	3.37	2.02	8.35	HONESDALE		s 10.38	s 1.57	s 7.53	s 6.56
3.15	3.40	2.05	8.38	HONESDALE JUNC.		10.35	1.54	7.50	6.53
P. M.	P. M.	P. M.	A. M.	Arrive	Leave	A. M.	P. M.	P. M.	P. M.
142	108	130	138			117	101	127	143

message. He will take the best measures within his reach to have his train forwarded with the least possible delay ; and every employee of the Company is required to assist him.

4. All accidents, damage to the Company's property, and injury to persons, must be immediately reported by telegraph to the Superintendent, and followed promptly by detailed report on blank form No. 16. These blanks are kept at Nineveh, Carbondale, Green Ridge, Hudson, Wilkes-Barre, Plymouth Junction, and Honesdale.

5. When engines running on double track pass other engines or trains on curves, the engineers will sound their whistles to warn trackmen of their approach ; care being taken to avoid whistling while opposite passenger cars.

6. Engineers must pass all stations cautiously, whether they are to stop or not. Running off a switch at a station where the train is to stop or pass another train, or in switching in any yard, will be considered as gross negligence on the part of the Engineer, requiring in all cases a satisfactory explanation in writing to the Superintendent.

7. Engineers must keep a good lookout, as they move for-

ward, for any signals, either from the repair men, or other employees of the Company, all of which they are responsible for seeing and immediately attending to, even if they should see reason to think such signal unnecessary. The lives of passengers are entrusted to their care, and it is fully expected that they will not only attend to every signal, and to all their instructions, but also that they will, on all occasions, be vigilant and cautious themselves, not trusting alone to signals or rules for safety.

8. Engineers will be held responsible for their Engines being neat, clean, and in good working order before leaving the Engine house, supplied with coal and water, and all requisite tools belonging thereto.

9. Division Foremen will pass over and examine their sections daily and ascertain that track, cuts, slopes and bridges are safe. They must see that no lumber, wood, stone, materials, or tools, are placed at any time within four feet of the rail, and that all gravel or ballast is leveled down so as not to endanger the safety of trains. In stormy weather they will be out with their men (day or night if necessary) and, with proper signals, watch those places liable to wash or be disturbed otherwise.

10. All working parties upon the track must give notice of any obstructions by their work, by exhibiting the proper signal at least half a mile each way.

11. Trackmen must make every effort to extinguish any and all fires along their sections.

12. Yard Limits at Carbondale, Lookout, Bushwick, Farview, Waymart and Honesdale are designated by Yard Limit Signs.—It will not be necessary for any engine or train occupying the Main Tracks inside the established Yard Limits to be protected by flagman, *except* when in the time of a First-class train.—All trains must be governed accordingly.

**Semaphore Signals at Panther Bluffs:—**

(1) Eastbound trains will be governed, first, by the Distant Signal No. 1 (east of Panther Bluffs), and second by the lower blade on Home Signal post.

(2) Westbound trains will be governed, first, by the Distant Signal No. 2 (east of Panther Bluffs), and second by top blade on Home signal post.

**Interlocking Signals and Switches at Lookout Junction:—**

Special instructions governing the use of Signals and Switches at Lookout Junction (Carbondale), were issued on August 18, 1900.

All train and enginemen must familiarize themselves with these instructions and will be held accountable for their proper observance.

C. R. MANVILLE, Superintendent,  
Carbondale, Pa.

6. The Hudson Coal Company Shop Orders / Invoices, Providence Repair Shops: About 2,000 invoices that were de-accessioned by the Wayne County Historical Society were donated to the Carbondale Historical Society by Jason Smith on December 30, 2021. Three of those invoices are shown here:

To FOREMAN  
☐ MACHINE SHOP  
☒ BLACKSMITH SHOP  
☐ ELECTRICAL SHOP  
☐ FOUNDRY  
☐ PATTERN SHOP  
☐ CAR SHOP

**THE HUDSON COAL COMPANY**  
**SHOP ORDER**  
 NO. 9546 DATE 5-29-46 INVOICE NO. 4557

SHIPPED FROM **PROVIDENCE REPAIR SHOPS**  
 SHIPPED TO **Olyphant Store**  
 PUT UP BY  
 DATE SHIPPED OCT 29 1946  
 HOW FORWARDED  
 CAR INITIAL AND NO.

SALES ADVICE OR REQ N NO	ITEM NO.	DESCRIPTION OF MATERIAL	QUANTITY	UNIT	CREDIT MAT'L CLASS NO	ART NO.
258	15	Liner, Steel door 3/16" x 20-7/16" x 48" Dwg. 8584-14 Rev 10-21-26	15	Each	23	

DATE COMPLETED  
 FOREMAN

**COST DATA**

MONTH	MAN HOURS	LABOR AND LABOR S. E.	MATERIAL S. E.	MATERIAL	TOTAL
10	14 1/2	25.28	1.89	29.98	57.25
					57.25

INSTRUCTIONS  
 THIS ORDER SHALL ORIGINATE WITH THE SUPERINTENDENT OF SHOPS  
 ALL LABOR AND MATERIAL THAT IS USED IN COMPLETING THIS SHOP ORDER MUST BE PROPERLY REPORTED ON FORM 3088, DAILY TIME CARD, AND FORM 407, MATERIAL ORDER. ANY LEFT OVER MATERIAL AT COMPLETION OF SHOP ORDER MUST BE REPORTED ON FORM 3503, MATERIAL RETURNED TO STOCK.

To FOREMAN:  
☒ MACHINE SHOP  
☐ BLACKSMITH SHOP  
☐ ELECTRICAL SHOP  
☒ FOUNDRY  
☐ PATTERN SHOP  
☐ CAR SHOP

**THE HUDSON COAL COMPANY**  
**SHOP ORDER**  
 NO. 9220 DATE 5-8-46 INVOICE NO. 2315

SHIPPED FROM **PROVIDENCE REPAIR SHOPS**  
 SHIPPED TO **Pine Ridge Store**  
 PUT UP BY  
 DATE SHIPPED JUN 5 - 1946  
 HOW FORWARDED  
 CAR INITIAL AND NO.

SALES ADVICE OR REQ N NO	ITEM NO.	DESCRIPTION OF MATERIAL	QUANTITY	UNIT	CREDIT MAT'L CLASS NO	ART NO.
M&E 2540	4	4-3/8" Cast iron <del>WATER</del> set screw collars	2	Each	26	

DATE COMPLETED  
 FOREMAN

**COST DATA**

MONTH	LABOR	SHOP EXP	MATERIAL	TOTAL
7 1/2	5	11.10	.82	3.56
				15.48

INSTRUCTIONS  
 THIS ORDER SHALL ORIGINATE WITH THE SUPERINTENDENT OF SHOPS  
 ALL LABOR AND MATERIAL THAT IS USED IN COMPLETING THIS SHOP ORDER MUST BE PROPERLY REPORTED ON FORM 3088, DAILY TIME CARD, AND FORM 407, MATERIAL ORDER. ANY LEFT OVER MATERIAL AT COMPLETION OF SHOP ORDER MUST BE REPORTED ON FORM 3503, MATERIAL RETURNED TO STOCK.

TO FOREMAN  
☐ MACHINE SHOP  
☒ BLACKSMITH SHOP  
☐ ELECTRICAL SHOP  
☐ FOUNDRY  
☐ PATTERN SHOP  
☐ CAR SHOP  
PLEASE MANUFACTURE THE ARTICLES LISTED BELOW

THE HUDSON COAL COMPANY  
**SHOP ORDER**  
NO. 9587 DATE 6-3-46 INVOICE NO. 2641

FORM 1480

SHIPPED FROM PROVIDENCE REPAIR SHOPS  
PUT UP BY  
DATE SHIPPED JUN 25 1946

SHIPPED TO Lorse Store  
HOW FORWARDED  
CAR INITIAL AND NO.

SALES OFFICE OR REQ. NO.	ITEM NO.	DESCRIPTION OF MATERIAL	QUANTITY	UNIT	CREDIT	
					REF. L. CLASS NO.	ART. NO.
183	9	Angle, Clip, Mark A-38 Dwg. 11906-54, Rev. 9-28-45 for Lorse #5 Self dumping steel cages	4	Each		37

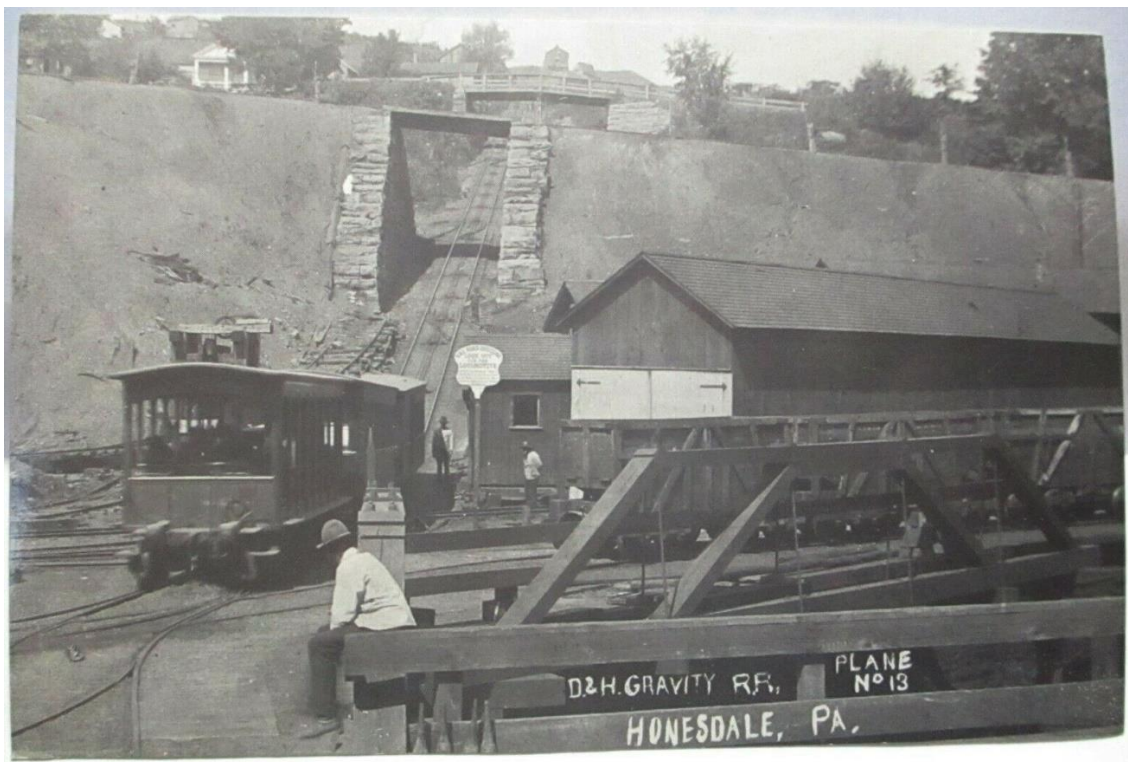
COST DATA

MONTH	MAN HOURS	LABOR AND LABOR S. E.	MATERIAL S. E.	MATERIAL	TOTAL
6	1	1.52	.11	1.54	3.17
					3.17

DATE COMPLETED  
FOREMAN

INSTRUCTIONS  
THIS ORDER SHALL ORIGINATE WITH THE SUPERINTENDENT OF SHOPS.  
ALL LABOR AND MATERIAL THAT IS USED IN COMPLETING THIS SHOP ORDER MUST BE PROPERLY REPORTED ON FORM 308, DAILY TIME CARD, AND FORM 407 MATERIAL ORDER. ANY LEFT OVER MATERIAL AT COMPLETION OF SHOP ORDER MUST BE REPORTED ON FORM 3503, MATERIAL RETURNED TO STOCK.

7. Shown here is a good quality print of a photograph of Plane No. 13 in Honesdale that we downloaded from E-Bay on December 31, 2021:



8. Very interesting data about Lehigh Coal Company No. 126 from Mike Bischak, January 4, 2022:

Engr. Breezy, Mon, Jan 3, 9:46 PM

Hello Dr. Powell,  
Happy New Year!

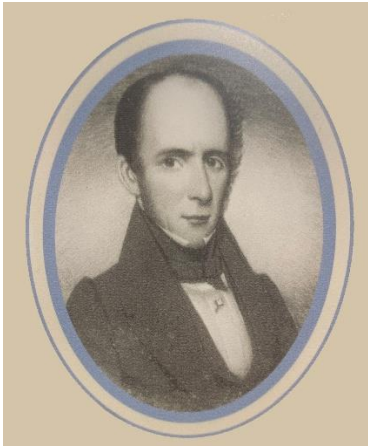
I was reading your Addendum #4 and when I came across the piece on the steamer that was in the Carbondale roundhouse, I thought you would like a few photos of it when they took it out and were preparing it for shipment to its new home in Indiana. The Grambling's (father & son) rebuilt it and take it to various shortlines to run. It has to be trucked on a low-boy as it cannot be interchanged. I rode behind it on the Allentown & Auburn RR in Kutztown in July of 2016.

Have a good week, Breezy

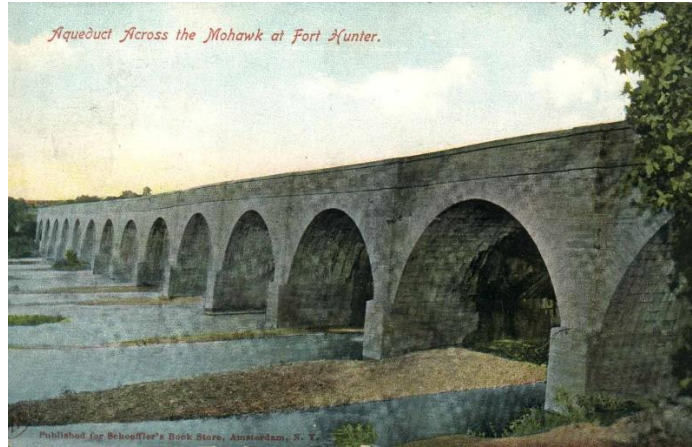


9. Material about John Jervis that is posted on the Erie Canal Museum website (downloaded January 11, 2022):

**“John Jervis:** Hired to help clear land for surveying teams at the start of the Erie Canal’s construction in 1817, Jervis became resident engineer for the Canal’s Middle Section just two years later, overseeing some of the final improvements in the Syracuse area, then became Superintendent of the Eastern Section in 1824. An engineering pioneer, Jervis went on to design several more canals and some of the nation’s earliest railroads in addition to his work on the Croton Aqueduct. Speaking of aqueducts, Jervis actually came back to the Erie Canal for its enlargement and in that capacity designed one of the most iconic pieces of historic canal infrastructure that remains today: the Schoharie Creek Aqueduct, located at Schoharie Crossing.”



John Jervis



Aqueduct across the Mohawk River at Fort Hunter

#### 10. Notes on Avondale and Knox Mine disasters, January 15, 2022:

Throughout January 2022, WVIA offered a series of programs about anthracite mining, including:

**“AVONDALE:** *The Avondale Mine Disaster [September 6, 1869] from a Mining Engineer's Perspective: It Was an Accident!* [emphasis added by SRP] by Eric Bella, mining engineer for Lehigh Engineering, Reading. Presentation hosted by the Plymouth Historical Society at the First Welsh Baptist Church, 168 Girard Avenue, Plymouth, PA 18651, Saturday, January 15, 7-8:30 PM.”

**SRP: The Avondale Mine Disaster was not an accident. It was arson.** See the comprehensive account of that tragedy in Volumes XIII (pp. 24-48), Volume XIV (pp. 232-233), and throughout Volume XVII in SRP's 24-volume series on the D&H.

#### **KNOX MINE DISASTER:**

--Sunday January 23, 9 AM, Annual Knox Mine Disaster Memorial Mass at St. John the Evangelist Catholic Church, 35 Williams Street, Pittston, PA 18640

--Sunday January 23, 10:30 AM: Annual Knox Mine Disaster Public Commemoration at the Pennsylvania Historical and Museum Commission Knox Marker in front of Baloga Funeral Home, 1201 Main Street, Pittston, PA 18640

--Sunday January 23, 11 AM. Annual Walk to the Knox Mine Disaster site along the Susquehanna River in Port Griffith. Meet at the Baloga Funeral Home for a caravan to the parking lot one mile away

11. Leonor F. Loree served as the eighth president of the D&H (April 10, 1907—March 31, 1938). The photo shown here of his private car was posted on Facebook on January 20, 2022 by Richard Hafer, with the caption given below:



“D&H Business Car No. 500, built by Pullman in 1917 for President L. F. Loree. Two staterooms, one drawing room, dining room and observation end. Shown here after renovation at Colonie, NY shops in 1967.” Audio-Visual Designs Postcard. Photo by Jim Shaughnessy. Richard Hafer Collection.”

**Mike Kelly:** “Of all the office cars I have seen or been involved with, this car was the most opulent. It’s now a foreman’s office in Mexico. Robbed of all of her jewelry.”

12. Presentation by Steve Pennington on Benjamin Wright at the Erie Canal Museum in Syracuse on January 20, 2022 at noon. (Derrick Pratt, Museum Educator, Erie Canal Museum, 318 Erie Boulevard East, Syracuse, NY 13202 315-471-0593 x 15; Natalie Stetson, Executive Director, Erie Museum).

Benjamin Wright was born on October 10, 1870, in Wethersfield, CT, and died in New York City on August 24, 1842. Originally he was named one of three engineers to design and build the Erie Canal. He was in charge of the middle division, originally, and was then named Chief Engineer of the entire canal, 1817-1825. He is regarded as the Father of American Civil Engineering.

Here is the link to the Benjamin Wright presentation by Steve Pennington on January 20, 2022:

<https://youtu.be/jM2XwCd27O0>

E-mail to [steve.pennington@geo-instruments.com](mailto:steve.pennington@geo-instruments.com):

January 21, 2022:

Dear Steve:

I enjoyed very much (and learned a lot from) your presentation, "Benjamin Wright--Father of American Civil Engineering", as part of "The Erie Canal and the Era of Manifest Destiny" lunchtime lecture series.

Attached is a hastily-written text, titled "Benjamin Wright and John Jervis", that I wrote following your presentation. Also attached is an article that I wrote about the 1824 D&H map that was published in the December 2021 issue of the *Bridge Line Historical Society Bulletin*.

In recent years, I have done a lot of research and writing about the Delaware and Hudson Canal Company (see attached D&H Bibliography).

Sincerely,

S. Robert Powell, President  
Carbondale PA Historical Society  
[srp18407@gmail.com](mailto:srp18407@gmail.com)  
570-282-0385

-----  
"Benjamin Wright and the Delaware and Hudson Canal Company" by S. Robert Powell, Ph.D.  
(President of the Carbondale Historical Society)

Benjamin Wright served as Chief Engineer of the Delaware and Hudson Canal Company from May 1823 to May 14, 1827 (and up to December 6, 1827 as a consultant). During those years, he resided in upstate New York.

\* \* \* \* \*

In May 1823, Maurice and William Wurts (the D&H) engaged Benjamin Wright to make a survey from "tide-water of the Hudson River, at the mouth of the Wallkill, up the valley of the Rondout and thence over to the Delaware River, and thence up the same to the confluence of the Lackawaxen, and thence up the Lackawaxen, to a point as near to the Coal Mine as possible," in order to ascertain the practicability and expense of constructing a canal over this route.

About this survey, Alfred Mathews (*History of Wayne, Pike and Monroe Counties, Pennsylvania*, 1886, p. 229) says the following: “As Mr. Wright could not well disengage himself from his duties in connection with Governor Clinton’s favorite enterprise, he deputized Colonel J. L. Sullivan [builder of the Middlesex Canal in Massachusetts] and John B. Mills, two experienced civil engineers, to make the survey.”

During the summer and fall of 1823 the surveys were made under the immediate supervision of the coal-mine proprietors (Maurice and William Wurts) and the survey was completed by November 1823. A map of the region and the route was produced in 1824 to assist in awakening the interest in the proposed D&H coal mining/transportation system by Philadelphia and New York capitalists, who had no other knowledge of the obscure “coal-fields” than what they could gain from the map.

Shown below are both the Pennsylvania section and the New York section of that 1824 map.



Pennsylvania section of the 1824 map of the D&H coal mining and transportation system



New York section of the 1824 map of the D&H coal mining and transportation system

“On May 21, 1825, Benjamin Wright rendered a report discussing the route that should be adopted for canal construction, and on June 1 this report was submitted to the D&H Managers. This document is highly important as a part of the company’s history. In it Mr. Wright not only expressed a clear preference for the route that, in actual construction, was substantially adopted, but also recommended, with a master’s confidence, the building of a railway as the final link between the navigation and the mines.” (*Century of Progress*, p. 27)

By the Spring of 1827, the D&H Managers had officially decided (given Benjamin Wright’s recommendation) that a railroad would be the final link in the transportation system from the coal mines to New York City. “On May 14, 1827, the resignation of chief engineer Benjamin Wright was accepted with the thanks of the Board for his faithful services and John B. Jervis, who had served as assistant engineer, was appointed to succeed him [Wright] at a salary of \$4,000 yearly.” (*Century of Progress*, p. 43)

On April 4, the new Chief Engineer was directed to survey and locate a railroad from the proposed terminus of the canal to the coal mines at Carbondale. Jervis devoted the summer to this work and on October 22 he presented a report which was submitted to the Board on October 24. He concluded his report with these words “Successful accomplishment will form a new era in the internal improvements of our country”

Professor James Renwick of Columbia College was then asked by the D&H to take a look at the report. Jervis's report and Professor Renwick's comments on it (letter to John Bolton, November 17, 1827) were then submitted to Benjamin Wright who, in a short letter dated December 6, addressed to D&H President John Bolton, agreed, with slight qualifications, to the conclusions that the others had already reached. Thus fortified the committee in charge of construction of the railroad was authorized to proceed with the work and to put the railroad in operation in conformity with the consensus of expert opinion. Two years later, on October 9, 1829, the railroad designed by John Jervis, the Delaware and Hudson Gravity Railroad, opened.

13. "Dropping the pusher": Facebook post on January 24, 2022, by Arthur House:

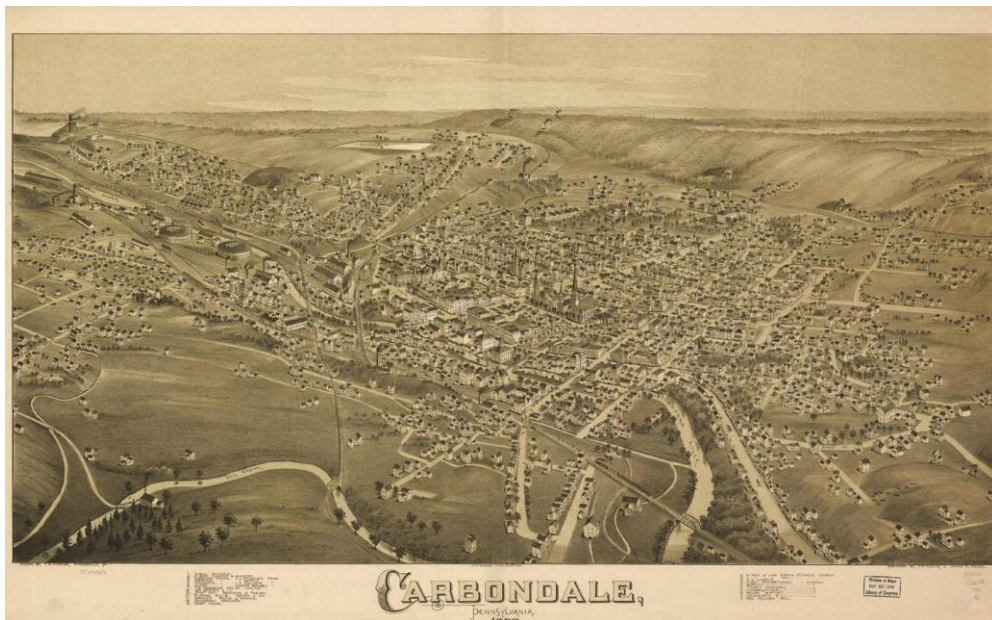
**Delaware and Hudson Railroad: Arthur House:** In the early fall of 1970, I'm working as flagman on Binghamton-Mechanicville manifest BM-5. We've just dropped the pusher engine at Tunnel N.Y., at the summit of the Belden Hill grade. Photo by Arthur House.



14. Here are six very choice D&H/mining photos found on Facebook on January 25, 2022, and downloaded for future use:



John Mitchell as a Young Man



Bird's Eye View of Carbondale, Pennsylvania, 1890



Breaker Boys, at Work, “near Scranton”



*Breaker Boys at the Pennsylvania Coal Company's Ewen Breaker (built in 1915, replacing the first plant that was built in 1886 and destroyed by fire in 1914; located in Jenkins Township, Luzerne County, PA)*



High resolution photograph of the “Lackawanna”, a Gravity-gauge steam locomotive, at the docks at Honesdale, PA

15. Oil painting of “Shepherd’s Cook” by Lou Davis (donated to the Carbondale Historical Society on April 28, 2014, by John Vojick, Carbondale, PA; painting is 7” x 9”); Lou Davis was the uncle of Russell Peters, who married Helen, the sister of John Vojick. Russell Peters had the flower garden in the Carbondale D&H Yard (see item on Internet Archive titled “Russell Peters’ Flower Garden in the Carbondale D&H Yard”):



“Shepherd’s Crook” by Lou Davis

16. *Cascade Wye at Lanesboro, PA.* Photo by George C. Corey, posted on Facebook, February 4, 2022:



D&H 1522 & 1521, Lanesboro, PA. Ma 30, 1952.

Photo by George C., Corey

**Delaware and Hudson Railroad: George C. Corey:** “Near the end of the time of the Challengers, the 1522 and 1521 came over from Carbondale to Lanesboro, PA to help a southbound freight up the hill. The helpers were turned at Omaha [Cascade] wye. This was May, 1952. We came by there in October and three S-4mAlco switchers were the helpers and three RS-3s were the road power.

02-17-2022: Walter Kierzkowski comment: “Wye at Lanesboro 2 D&H Challengers after the push up Mt Ararat heading back to Carbondale.”

17. “Starrucca Viaduct, Lanesboro, PA”, painting by Joe Phalon, posted in Delaware and Hudson Railroad Facebook group, by John Cudo, February 7, 2020, from *Remember Susquehanna*:



**Joe Phalon:** This is my painting of the Starrucca Viaduct. I spent many days railfanning the EL and the D&H in the 70s and 80s. The railroad industry has gone through many changes since that time but Starrucca keeps surviving all the upheavals and abandonments.

**Silas Robert Powell:** Powerful and evocative image, loaded with railroad history, that opens the door to a world that no longer exists. Great job! Thank you.

18. “The D&H ‘Assembly Line’ from the Anthracite Coal Fields to Tidewater and Beyond” by S. Robert Powell; article published in the February 2022 *Bridge Line Historical Society Bulletin*, pp. 15-16:

*For the Record*

## **The D&H "Assembly Line" from the Anthracite Coal Fields to Tidewater and Beyond**

by S. Robert Powell, Ph.D.

There is an important analogy to be made between Henry Ford's celebrated assembly-line mode in the production of automobiles, and the coal mining and transportation system established by the D&H between the anthracite mines of northeastern Pennsylvania and coal customers in New York City and beyond. The central and determining feature in the analogy is this: the worker is stationary, and the work to be performed is delivered to his work station, where he does his job and passes the work to the next worker on the line. On the Ford assembly line, the work performed was making a car; on the D&H coal mining and transportation system, the work performed was mining coal and moving it to market.

### **From the anthracite mines to the foot of Plane No. 1 on the Gravity Railroad**

All of the "work" performed in anthracite mining is site-specific, performed by workers at various work stations. The workers remain at their work stations, and the coal comes to them. They do their job and pass the coal on to the next site in the system. Specifically: a licensed miner blasts free the coal at the coal face; a laborer loads the coal into a coal car on rails; a mule driver hitches the loaded car to a mule and the car is pulled to the mine exit; and there, a railroad worker attaches the loaded car to a mine locomotive, after which the car is pulled to a breaker.

There the coal is dumped into the breaker and processed by workers at various positions within the breaker; they clean and remove impurities from the coal and sort it by size as the coal moves by gravity down through the breaker. At the breaker exit, the coal is reloaded into coal cars, which are pulled by a steam engine to the foot of Plane No. 1 at Carbondale.

### **Foot of Plane No. 1 to the D&H Canal at Honesdale**

At the foot of each plane on the Gravity Railroad, a "footman" connected the loaded coal cars to a cable, which then

pulled the cars up the plane under the direction of an engineer at the head of the plane. At the head of the plane, a "headman" disconnected the cars, which then entered a "level", coasting to the foot of the next plane, where another footman connected the cars to a cable, and so on and on, until the loaded cars arrived at the Canal basin at Honesdale.

### **Honesdale to the Hudson River**

At the Canal basin, canal workers unloaded the coal into storage piles or into empty Canal boats. The loaded coal boats were moved by mules led by canal workers to a canal lock, where a lock tender moved the loaded boat through the lock. He passed it on to more mules and more canal workers, until the loaded boat finally arrived at tidewater, where site specific workers received the coal and passed it on, so to speak, to other workers. In turn, they loaded it into Hudson River barges, on which it was taken down the Hudson River to New York City, where it was consigned to wholesale dealers, who sold it to customers, who used the coal as fuel.

As the coal was moved through the D&H transportation system from the interior of a mine in northeastern Pennsylvania to retail customers in New York City and elsewhere, the coal was received and processed by mine, railroad, or canal workers who remained at their work stations throughout their shifts, performing the same task over and over. The coal was delivered to them; they did their job, and then passed the coal on to the next person in the system.

This assembly-line production, processing, and transporting of coal from the anthracite mines in northeastern Pennsylvania to New York City made it possible for the D&H to produce and send to market untold millions of tons of coal in the nineteenth century. If the anthracite coal "assembly line" from the mines to Manhattan was, for some reason, stopped for a short period of time (e.g., a track washout on the mountain, a leak in the canal), the system

as a whole was flexible enough to absorb the problem and continue to function, albeit at a slightly slower speed for a short period of time. A major interruption of service in the anthracite production and transportation system that required a lot of time (more than a day or two) for a repair to be made (the explosion of a stationary steam engine at the head of one of the Gravity planes, a washout of a lock on the canal, a strike of the anthracite miners) would be a serious matter, because the assembly line, so to speak, would have to be stopped.

Such a major stoppage of the D&H "assembly line" took place in 1862, when Roebling's Lackawaxen Aqueduct was washed out by a flood on the Lackawaxen River. The anthracite coal "assembly line" came to an abrupt stop, and remained stopped for six weeks.

### **The Wash Out**

In May 1862, a prolonged drought prevailed in northeastern Pennsylvania, and forest fires were widespread. Finally, in early June, it rained, which diminished the threat of more fires, but which caused other problems.

In the *Carbondale Advance* of June 7, 1862, we read: "RAIN AT LAST. - We have finally been favored with a thorough rain, quite sufficient to supply our great want. It began as gently as could have been desired, with sunshine at intervals. But the ground having become prepared for it, it came copiously. *It rained superbly for more than 24 hours* [emphasis added]. The effect in this vicinity seems to have been only blessed, but about us we hear of bridges swept off, canal banks washed away, railroads obstructed, and other concomitants of a flood". In that same issue of the *Carbondale Advance*, we read: "We learn that the flood this week has damaged the Del. & Hud. Canal, very seriously."

From Manville B. Wakefield's book, "Coal Boats to Tidewater" (pp. 87-88), we learn more about the heavy rains and the damage inflicted by floodwaters on the Lackawaxen River:

"In June 1862', recorded by John Johnston in his 'Reminiscences and Descriptive Account of the Delaware Valley and its Connections ... 1900', 'by reasons of heavy rains along the sources of the Lackawaxen River, that stream attained a height never before known to the memories of man. The Delaware ... was but slightly affected by the rains, and so great was the force of water issuing from the Lackawaxen that it rushed across the Delaware and flooded up the opposite shore. In the mad rush of water, the pier of the aqueduct spanning the Lackawaxen was undermined and thrown down bodily, with but a single crack, the use of the aqueduct destroyed, and the entire business of the canal suspended for the time".

With the central pier of the Lackawaxen aqueduct thrown down by flood waters (June 7), the aqueduct collapsed, and navigation on the D&H Canal was suspended for six weeks, until July 15-16. Work on building a new aqueduct at Lackawaxen by nearly five hundred men, including many of the best mechanics on the line of the canal, and all under the personal supervision of Russel F. Lord, the D&H Canal superintendent, was begun immediately. For about ten days, the construction team, under the direction of R.F. Lord (fortified by alcoholic spirits) attempted, in vain, to fill the hole, 20 feet across and 10 feet deep, in the Lackawaxen River where stood the center pier of the collapsed aqueduct, and where a new central pier for a new foundation would have to be constructed.

Finally, a Mr. Sykes, "whose sober and more extensive judgment at once discovered the source of the trouble" was called in, and he suggested that the cavity be filled in by throwing stones plentifully mingled with good cement mortar. *One thousand barrels of cement were secured* [emphasis added], and in six hours after the cement was hard, the cavity was filled, and the best possible foundation prepared. A new Lackawaxen Aqueduct was then constructed, and on Tuesday, July 15, 1862, the D&H Canal reopened and navigation generally resumed on July 16, after not having been in service for six weeks in the best part of the shipping season.

#### When the assembly line stops, all work stops

The consequences of stopping for six weeks the forward movement of coal on the D&H "assembly line" (the coal mining

and transportation system established by the D&H between the anthracite mines of northeastern Pennsylvania and customers in New York City) were far reaching, and negatively affected all D&H workers in the system, and thus on "the D&H assembly line". In the July 12, 1862 issue of the *Carbondale Advance*, published in the week before the re-opening of the new Lackawaxen Aqueduct and, therefore, the Canal, we read:

#### "The Coal Business

"The repairs upon the Canal of the D. & H. C. Co. are taking more time than was at first expected. It is now expected to be ready early next week. *The amount of coal stored at Honesdale has reached its maximum under present arrangements, and the Company has been obliged to discontinue mining and sending it over the Railroad until shipments can be made on the canal* [emphasis added].

"During the six weeks that the canal was out of service because of the washout of the Lackawaxen Aqueduct, the canal boats in the canal were immobilized in the canal, which meant a loss of income to their owners who, now that the canal was once again in operation were, it appears, talking of going on strike to protest lost income due to the washout. 'The President, Managers and Company of the Delaware and Hudson Canal Company' (mines /railroad/canal) at this point took the extraordinary step of salving the alleged wounds, so to speak, of the disgruntled boat owners by heading off a strike by the sniveling, parochial, and small-minded canal boat owners, who were incapable of or unwilling to see the big picture, by now paying \$50 to each master of a boat on the D&H Canal".

In the *Carbondale Advance* of July 19, 1862, we read:

"... Navigation has been resumed. The aqueduct was nearly enough completed on Monday evening to admit of its being filled, and on Tuesday morning, boats passed freely up and down. We are gratified to state that the difficulties between the boatmen and the Company have been satisfactorily adjusted, and there will be no detention of boats in consequence of a strike. The liberal offer of fifty dollars to each master of a boat, *which the Company voluntarily made* [emphasis added], seems to have been properly appreciated, and navigation was generally resumed on Wed-

nesday. What with the donation mentioned, the opportunities which the boatmen had of earning something while the canal was being repaired, and the probability that every facility will be afforded for an increase of business during the remainder of the season, we think that the boatmen will not find themselves seriously the losers by the late detention. The same cannot be said of the Company, however, who have suffered a loss of six weeks time in the best part of the season, been put to an expense of thousands upon thousands of dollars to repair the damages caused by the flood, and have made a present of upwards of \$20,000 to their employees. In view of these facts, we hope that there are none so ungenerous or shortsighted as to advocate a course which would occasion further delay, and consequently greater damage to the business interests of this entire community".

The Delaware and Hudson Canal Company's production and transportation system between the anthracite mines in northeastern Pennsylvania and retail customers for that coal in New York City and beyond was, it can be argued, the first expression in American history of a system of production and distribution of a commodity in which the work to be performed was carried out by workers who, in effect, were stationary, and the work to be performed was delivered to them by a transportation system that united and unified the work performed by the efforts of everyone involved, and was their raison for being. It is impossible, therefore, not to make an analogy between Henry Ford's celebrated assembly-line mode of the production of automobiles and the coal mining and transportation system established by the D&H between the anthracite mines of northeastern Pennsylvania and its customers in New York City and beyond.

#### Page 17:

**Top:** D&H RR passenger station platform, Scranton branch, Scranton, PA., on April 10, 1917. BLHS Archives scan by Mike Bischak.

**Bottom:** The D&H's "Upholstery Drying Room" at the Oneonta, NY coach shops was an exercise in maximizing the re-use of old boxcars. June 11, 1918; BLHS Archives scan by Mike Bischak.

Also in the February 2022 issue of the *BLHS Bulletin*:



**The Mail Car**  
Mail from our favorite  
source - our readers!

**Renewal comments  
from *The Membership***

BLHS is the best railroad historical  
society newsletter.

Good luck and keep it going. Your  
"Black Flags" are getting too often and too  
well known to me, too frequently. I sup-  
pose I'm just gettin' old!

Many thanks to you all!

Good job!!

Love this mag. - Best one we get at our  
home!

Thank you for all that the BLHS board  
and publishers and regular article contribu-  
tors do to make the BLHS a first class  
historical society. Your time, effort and  
energy are very much appreciated. Merry  
Christmas and a Happy 2022.

Great job.

I was saddened to hear of **Jim Lafay-  
ette**'s passing this past summer. I enjoyed  
his column very much, and it reminds me  
to thank all the *Bulletin*'s many other col-  
umnists, contributors, and editorial staff.  
Without your time and talents, the BLHS  
would be poorer indeed!

Will miss **Jim Lafayette**. He was a  
good friend.

Always a great newsletter with history.

It is great to see the society officers  
and *Bulletin* editor encouraging new young  
columnists such as Harrison Smith. As I

read in the tributes to **Jim Lafayette**, his  
willingness to share his experiences about  
railroading, and especially the D&H, with  
a younger generation should be something  
we all do. Best way to keep the BLHS  
going for time to come.

Always look forward to reading the  
*BLHS Bulletin*.

Whoever you are who  
made this very nice  
comment, thank you  
very much.

Continue to pour over and enjoy each  
issue. **Dr. Powell**'s addition as a contribu-  
tor has been a stellar complement to the  
already great content. I've really enjoyed  
**Steve Wagner**'s columns as well.

The magazine continues to be a valu-  
able source for railroad news and always a  
good read. Thanks Jim, Barb, and all.

I love your writers and your whole  
publication! Makes me remember my  
grandfather sealing D&H boxcars when I  
was a child in the early 1950s. Thank  
you!!!

I'm very proud to be a long-standing  
member of this group. You all do a fantas-  
tic job! Thanks very, very much.

I have been continuing to enjoy reading  
and writing for our *Bulletin* and corres-  
ponding with several members. I've had to  
miss in-person meetings because of the  
pandemic; I hope to attend them in 2022.  
Thanks to many others for all they do for  
our group.

Thank you once again for keeping us  
informed on the D&H corner of the grow-  
ing CP empire. Your hard work and dedi-  
cation are much appreciated.

Another year of an excellent publica-  
tion. Thanks to the officers and staff,  
including all contributors. Merry Christ-  
mas and Happy New Year to all!

I love the on-the-job stories. Reminds  
me of my dad (NYC) and grandfather  
(B&A) telling tales of work after Thanks-  
giving and Christmas dinners at family  
gatherings. It's in your blood for sure.  
Best wishes and thank you for the best of  
the D&H.

Another year to be proud of your ac-  
tion keeping the D&H alive.

Keep the D&H spirit alive

me to relate some of my  
will stake a claim to some

ing! ... BB

ed by the loss of both Jim  
**Bruce Sterzing**. Always

enjoyed reading Jim's articles.

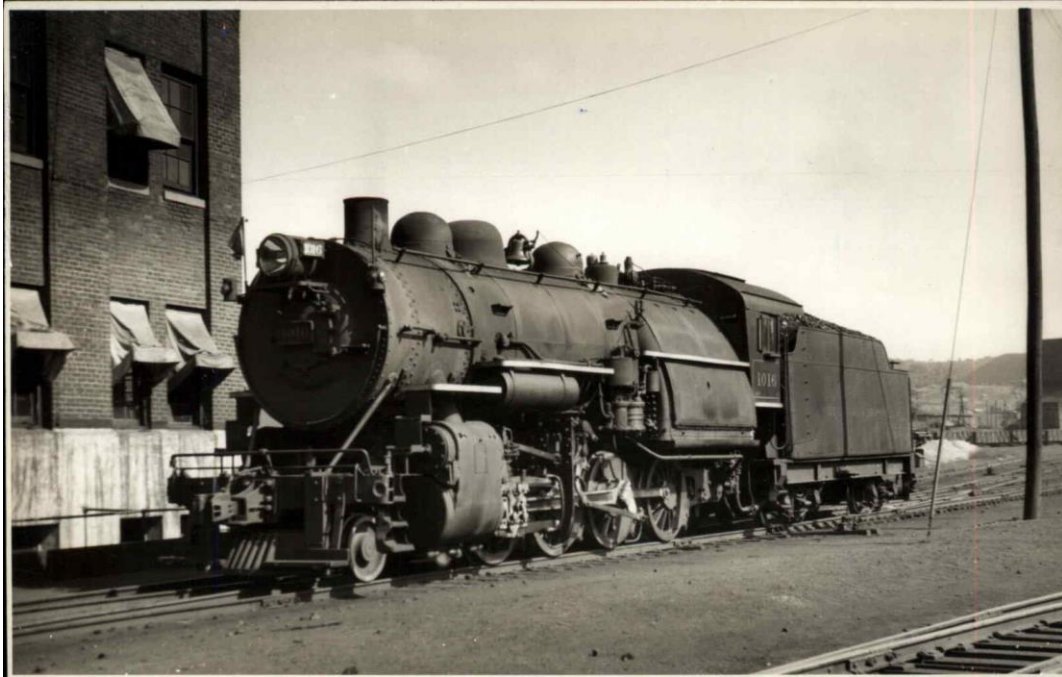
You folks keep our D&H alive and  
well-remembered. Thanks for all your  
personal efforts to make BLHS a valuable  
and vibrant organization. This really mat-  
ters as we see our heritage attacked on all  
sides. Integrity and excellence are critical  
to our well-being. You contribute much to  
that cause. Merry Christmas.

I love getting the *Bulletin* each month.  
I'm sorry there's no 2022 calendar. Tradi-  
tionally the BLHS calendar is part of a  
triptych of calendars on my office wall  
(The other two celebrate original series  
Star Trek and the Long Island Railroad).  
I'm filling this out while sipping coffee at  
the nicely-refurbished former Southern  
Pacific/Pacific Electric Depot in North  
Hollywood, CA., re-purposed as a coffee  
shop. Sadly, the trackage it served has  
been torn up and converted into a busway.  
That's progress.

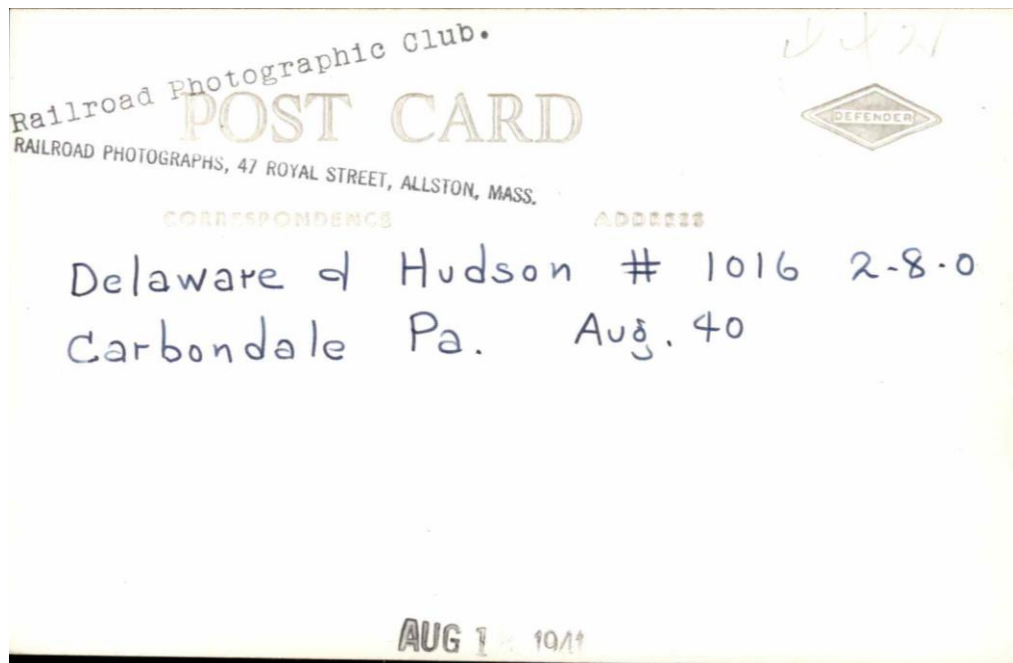
*That's quite an eclectic calendar collection.*  
*Sadly, due to my extensive work-related*  
*(and sometimes not so work-related) travels*  
*around the country, many of my slides and*  
*digital images are not of the D&H. That of*  
*course, makes them ineligible for any D&H*  
*calendar. Perhaps we can restart the*  
*calendar once we dig out from under the*  
*many collections that have been donated to*  
*the BLHS....JB*

Thanks to all whose dedication makes  
the *Bulletins* top shelf material. I have to  
compliment JB's sizing up articles in the  
"Industry News" in his own words what's

19. *D&H Engine No. 1016*, photo posted on *Facebook*, February 9, 2022:

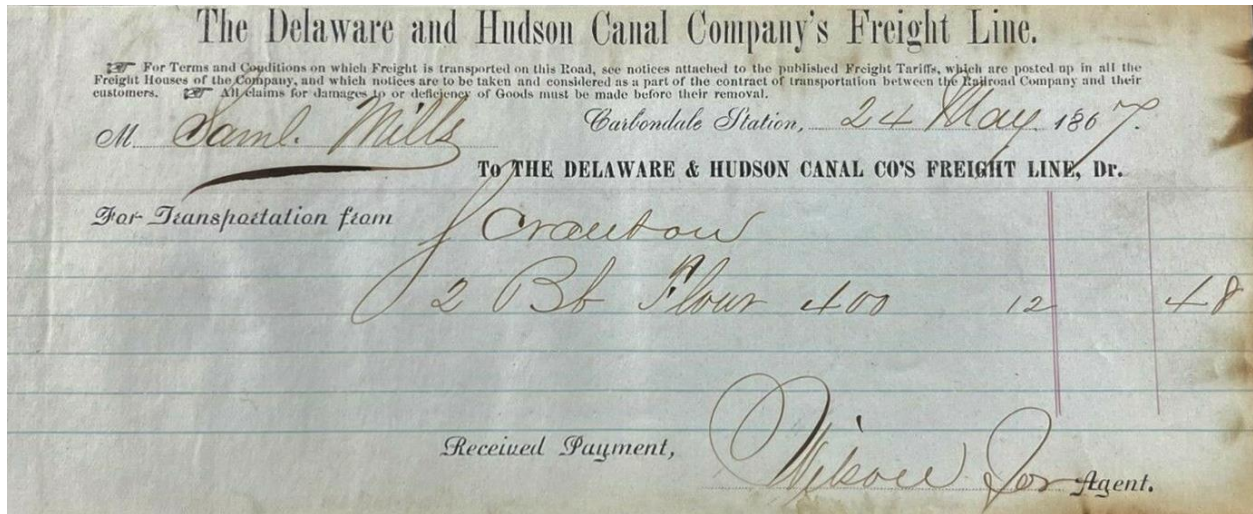


D&H Engine No. 1016, in Carbondale, August 1, 1940



20. D&H Freight Line invoice, photo posted on Facebook, February 9, 2022:

Was Coe F. Young in charge of this freight line at the time?



Invoice dated May 24, 1867

21. Two comments, posted on Facebook, on February 10, 2022, about the D&H telegraph at High Falls, 02-10-22:

**Kenneth Lifshitz:** I believe this was part of Ezra Cornell's contract to run a line from NYC to Albany in the early 1850s. This one running along the canal would have been a local feeder line.

**Bill Merchant:** Dr. **Silas Robert Powell**'s excellent and well researched article on the telegraph and the D&H says that in 1848, the D&HCC contributed \$300 for a telegraph line from Lake Erie to NYC, through Carbondale & Port Jervis, installed under Ezra Cornell's supervision. They didn't run lines on the Canal route until 1861-2. That's when the High Falls telegraph office was added to the NY Lock 15 Toll Collector's Office there.

SRP: Thank you Bill.

22. Photo of *Little Sarrucca*, posted by John Ackley in *Remember Susquehanna* Facebook group and reposted by John Cudo in the *D&H Railroad* Facebook group, February 13, 2022:



“Little Starrucca”

23. Carbondale mine fire and NYO&W, two photos posted by Walter Kierzkowski, February 16, 2022, on Facebook:



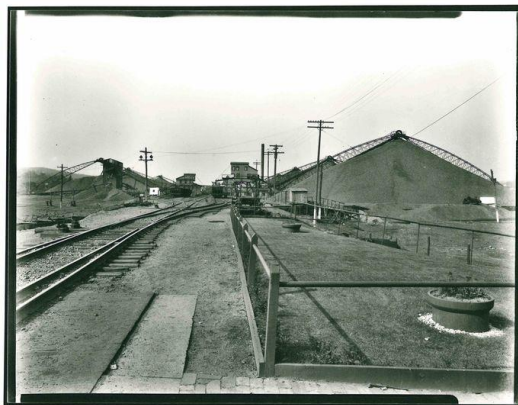


This was under the former NYO&W right of way; D&H tracks top right, Carbondale Pa.

24. Duffy's Field, posted on Facebook by Tony Hodun, February 16, 2022:

**Tony Hodun:** Thanks for sharing! It was also known as Duffy's Field, actually owned by the Hudson Coal Company, and was a massive facility. It was west of the [O&W] mainlines in the north of the modern location of MF cabin (Mayfield). As of 1950 it was the only storage yard remaining on the Penn Division, and it still had 8 permanent and 5 overflow floors for storage of different grades of coal (there is a floor under each coal pile). Overall capacity was 190,000 tons (!). Capacity of the empty car yard was 104 cars, service yard (for unloading and reloading, pictured here) was 125 cars, loaded yard could hold 127 cars. Above data comes from a D&H publication on the coal business dated 1950. This was the source of the letter code for DF cabin at the south end of Carbondale yard, though that interlocking was a mile or more to the north of Duffy's Field. It was just a massive overgrown field when I first saw it in the late 60s.

Photo of Duffy's Field posted by Walter Kierzkowski on February 18, 2022:



25. *Nineveh Junction*: SW Cabin, where the Lackawanna and Susquehanna (coming North from Jefferson Junction) merged with the Albany and Susquehanna (between Binghamton and Albany): Facebook post by Lisa Ellison, March 3, 2022, who bought this photo on E-Bay. The back of the photo is stamped: “Trackside Photos, Binghamton, NY”:



Nineveh Junction

26. “The Use of Inclined Planes on the D&H Gravity Railroad and Canal” by S. Robert Powell. This article was published in the October 2021 issue, pp.16-19, of the *Bridge Line Historical Society Bulletin*:

*For the Record*  
**The Use of Inclined Planes on the D&H Gravity Railroad and Canal**  
*by S. Robert Powell, Ph.D.*

The inclined plane is one of the six classical simple machines – lever, pulley, screw, inclined plane, wedge, wheel and axle – developed by man to facilitate the performance of work. Those machines, each of which uses a single applied force to do work against a single load force, are all mechanical devices that change the direction or magnitude of a force. One of those simple machines, the inclined plane, was integrated in the transportation system that was designed for the Delaware and Hudson Canal Company by both John Jervis (Gravity Railroad) and Benjamin Wright (D&H Canal).

An inclined plane is a simple machine that consists of a sloping surface connecting a lower elevation to a higher elevation. Using such a plane makes it easier/takes less force to move an object in an upward direction than it does to lift the object straight up, and this is because the inclined plane increases the distance that the object must be moved.

**Raising and lowering freight and passenger cars on the Gravity Railroad**

On the Gravity Railroad, the use of inclined planes has been well documented in the author's 24-volume series on the D&H, notably in Volumes I-VI. As is well known, loaded and light coal cars, freight cars, and passenger coaches were pulled up or lowered down inclined planes by stationary steam engines. When the Gravity line opened in 1829, most "cuts" of loaded coal cars that were pulled up the planes by stationary steam engines consisted of four cars, each of which contained five tons of coal. Ironically, the inclined planes on the Gravity Railroad, in fulfilling their mission, were used to make work against gravity easier.

On the levels between the planes, as constructed in 1829, horses pulled those same loaded and light coal cars, freight cars, and passenger coaches up very gently sloping inclined planes from the head of one plane to the foot of the next. Across Rixe's Level/the Summit Level, 1829-1845, a horse could pull no more than two loaded coal cars, in each of which were about five tons of coal.

When the 1845 configuration of the line was installed, those same levels were all graded so that the loaded and light coal cars, freight cars, and passenger coaches moved by gravity down very gently sloping levels/inclined planes from the head of one plane to the foot of the next.

**Raising and lowering boats on a canal**

Raising and lowering boats as they move through a canal, as all the world knows, is made possible by the locks in the canal. The "work" performed by the locks in a canal is wholly analogous to the "work" performed by the inclined planes, in the raising and lowering of passenger and freight vehicles on a railroad such as the D&H Gravity Railroad. The locks on a canal, in other words, function like inclined planes. The stretches of the canal between the locks, through which the canal boats are moved by mules or horses are, for all intents and purposes, true levels.

A loaded canal boat, headed for Rondout, for example, is moved into a canal lock and snubbed securely, and the gate at the rear of the canal boat is then closed. The paddle gate in the lock at the head of the canal boat is then opened, causing the water level in the lock to decrease. The canal boat, accordingly, is thus lowered to the level between the lock that the boat is passing through and the next lock in the system. This lowering of a canal boat that takes place as the water in the lock is released through the lower paddle gate is analogous to the lowering of freight and passenger vehicles on the Gravity Railroad as they move down a plane.

Similarly, an empty canal boat, or any boat going up the canal, is moved into a lock and securely snubbed. The canal gate at the rear of the boat is then closed and the paddle gate at the head of the boat is opened, which raises the water level and the canal boat in the lock to the height of the level between the lock through which it is then passing and the next lock on the canal. This raising of a canal boat that takes place as the water in the level at the head of the canal boat

enters the lock through the paddle gate at the head of the canal boat is analogous to the raising of freight and passenger vehicles on the Gravity Railroad as they move up a plane.

**Moving canal boats and horses/mules across the Delaware River**

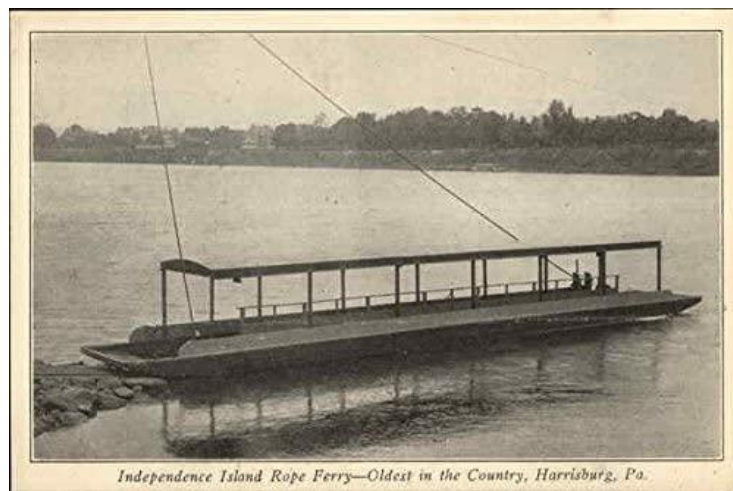
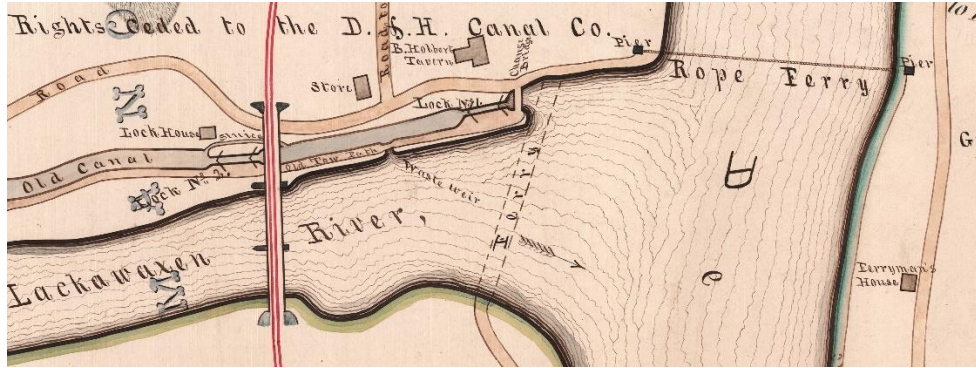
The several histories of the Delaware and Hudson Canal now in existence note that, in the period 1828 to the opening of the Delaware Aqueduct in 1849, the boats on the D&H Canal were moved across the Delaware River at Lackawaxen by means of a rope ferry. How does a rope ferry function? An excellent description *continued on page 18*

*Page 17:*

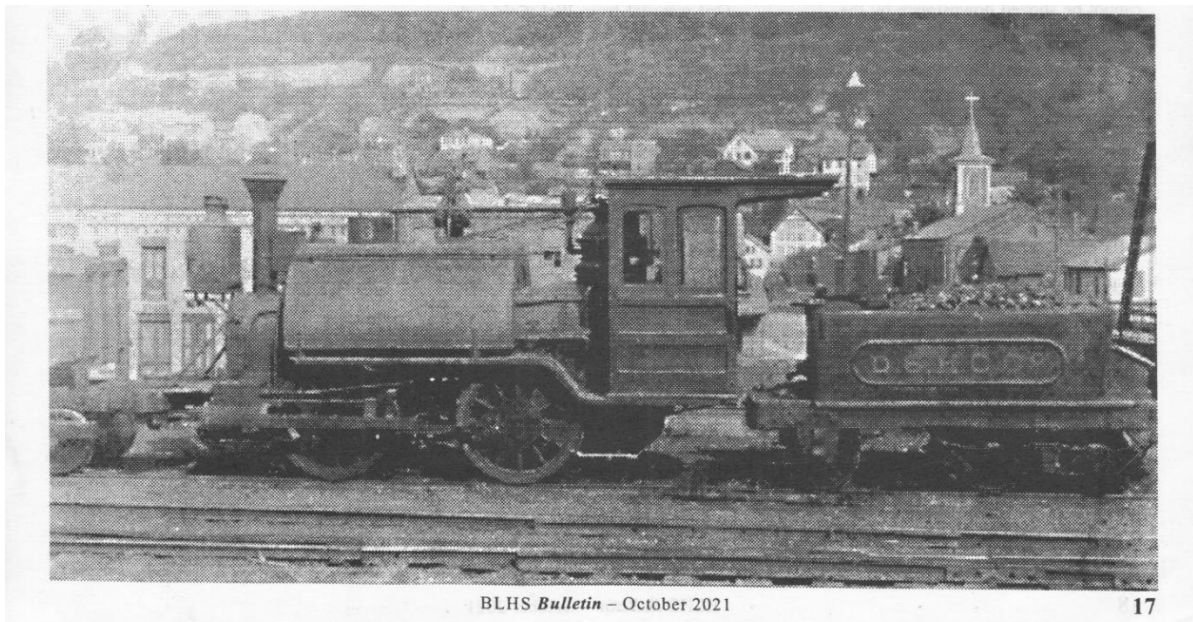
**Top:** Map detail of the map of junction of the Lackawaxen River and the Delaware River (surveyed in 1854, map drawn in 1856 by E. W. Weston, Honesdale, and revised in 1865) on which are shown D&H Pennsylvania Lock No. 1, the Lackawaxen River, the location of the piers on both shores of the D&H rope ferry across the Delaware River, and the location of the Ferryman's House on the New York shore. Provided by S. Robert Powell, PhD of the Carbondale Historical Society.

**Middle:** The Independence Island Rope Ferry at Harrisburg, PA. This is (was) the oldest rope ferry in the United States. Independence Island is about a mile upriver from the PRR crossing of the Susquehanna River. Provided by S. Robert Powell, PhD of the Carbondale Historical Society.

**Bottom:** D&H Canal Co. #3, built by Dickson in 1884, but apparently soon rebuilt. From the collection of Joe Costello. We realize this photo has nothing to do with this article, but we have been waiting for a good time to run this admittedly grainy but interesting photo. The D&H roster says this engine was an 0-6-0T, but when it changed from the 0-4-0T evident here may be lost in the sands of time. Or, maybe it was an entirely different engine?



*Independence Island Rope Ferry—Oldest in the Country, Harrisburg, Pa.*



**For the Record** from page 16 of how a rope ferry was operated in the nineteenth century is presented in James Otis' *Benjamin of Ohio, A Story of the Settlement of Marietta*. (James Otis Kaler, 1848 ?-1912, was an American journalist and author of children's literature, who wrote under the pen name James Otis).

On pages 27-28 in the December 9, 2019 edition of *Benjamin of Ohio*, we read the following about a rope ferry on the Lehigh River:

"And so we journeyed on without adventure until we came to the Lehigh River, and there I saw what I dare say no fellow in Massachusetts has laid eyes upon. It was called a *rope ferry*, by means of which we were to cross the river [emphasis added].

"Ben Cushing claims that there is nothing wonderful about this ferry, for it consists simply of a rope stretched from one bank of the river to the other; to this, attached by a noose, or, in other words, a hawser [hawser is a nautical term for a thick cable or rope used in mooring or towing a ship]. A hawser passes through a *hawsehole*, also known as a *cat hole*, located on the *hawse*, which will readily slip, the ferryboat is made fast in such a manner that the stern is lower downstream than the bow, and the current catching this, forces the boat along. Perhaps I haven't made this very plain to you, but it is operated on the principle of force applied to what might be called an inclined plane; therefore, since the craft cannot be shoved downstream by the current, it must be urged toward the opposite shore".

What is known about the rope ferry on the D&H Canal, and how it operated? In Manville B. Wakefield's "Coal Boats to Tidewater", pp. 81-82, we read, "As the canal was originally built, the loaded boats drooped down through three locks, Nos. 3, 2 and 1 respectively, to the rope ferry crossing. On the New York side, light boats moved out through a guard lock to the stilled pool of water above the dam". The dam was built in 1827 by the D&H across the Delaware River just below the confluence of the Lackawaxen and Delaware Rivers to create an area of still water for the floating across the Delaware River of canal boats.

Wakefield then quotes John Willard Johnston's "Reminiscences and Descriptive Account of the Delaware Valley and Its Connections Aiming to Extend from Pond Eddy to Narrowsburg, 1900": "A

towpath was formed along the river edge [on the New York shore of the Delaware River] a distance of one-half mile ... to a point where a ferry was erected; by means of a pier stationed at the opposite side of the river composed of four foot square pine timbers locked together at the corners and the interior thoroughly filled with stones. The piers were twelve foot square at the base, about fifteen feet high and contracted to about seven foot square at the top. These piers supported the ends of a ferry rope two inches in diameter stretched across the river from pier to pier. By means of this rope a *ferry scow* [emphasis added] was guided across the river as occasion demanded. (p. 37)

"When the water was at low mark, the boatmen [in exiting from Lock No. 1] would urge his horses to an extra burst of speed so as to establish sufficient headway to cause the boat to shoot across the river. This avoided the tedious process of being pulled across by rope. Many times the loaded boat crossing from the Pennsylvania side would pass over the river and enter the canal in New York before the horse and driver crossing by ferry would overtake it. When, however, the river was swollen by rains, the boats, horses, and all must be crossed by the ferry. ... Even this was possible only at certain levels of water, above which boats could not cross at all and the business of the canal suspended for a time". (Johnston, pp. 38-42). (End of Wakefield citation.)

That material from *Wakefield and Johnston* is seconded by statements in Volume III of the eight volumes of testimony in the court case between the Pennsylvania Coal Company and the Delaware and Hudson Canal Company. Therein, on pages 1809-1904, the testimony by Peter P. Yaple is reported. Yaple was a boatman on the D&H Canal, who was 45 years old when he testified. He began working on the D&H Canal in 1833 as the captain of a boat. At the time of his testimony, he resided in the town of Rochester, Ulster County, NY. In that testimony, on p. 1834, we read the following:

Question by attorney: "In what manner were boats passed across the Delaware River before the [Delaware] aqueduct was built?"

Yaple: "If the river was low, we would give headway to the boat with our horses, and shoot across it, as we call it;

and take the horse in a scow and draw it over by a line or cable crossing the river. If the river was high we would run our boat to the scow, and take a line out on the scow and haul the boat over by hand".

Attorney: "Do I understand you, in your preceding answers, to say that this process of crossing was prevented during time of severe freshets until the water should subside sufficiently?"

Yaple: "Yes".

On this same question, we read, on page 443 in Volume I of the account of the PCC/D&H court case, the following statement by Russel F. Lord, who was the Superintendent of the D&H Canal: "...on the old canal [before the Lackawaxen and Delaware aqueducts were opened in 1849] the boats crossed the Delaware River in a pool created by the Delaware dam, using a rope ferry to transfer the horse from one side to the other; by the erection of the aqueduct, the boats now pass direct through it [Delaware Aqueduct] over the river, and the horse on a towing-path on the side of the aqueduct".

The summary statements, based on the data presented above, show how D&H Canal Company boats and the horses that pulled those boats along the D&H Canal crossed the Delaware River at the rope ferry at the junction of the Lackawaxen and Delaware Rivers in the period 1829-1849.

#### **Crossing the Delaware River from the Pennsylvania shore to the New York shore of the Delaware River**

If the Delaware River was low, a D&H canal boat captain, in departing from Lock No.1, would give headway to his boat and shoot across the Delaware River. The horse or horses assigned to that boat would be transported across the Delaware River on a scow attached to the rope ferry. If the river was high, the canal boat would be moved across the Delaware River by means of the rope ferry; the horse associated with that boat would be taken across the Delaware by the scow on the rope ferry.

#### **Crossing the Delaware River from the New York shore of the Delaware River to the Pennsylvania shore of the Delaware River**

Canal boats, loaded and light, would be taken across the river by means of the

rope ferry. The horses associated with those boats would be taken across the Delaware River on the scow that was part of the rope ferry system.

### Rope Ferries, Physics, and Geometry

How does a rope ferry function? The rope ferry across the Delaware River, which used the power of the river to tack across the current, was what is known as a "reaction ferry", which is a cable ferry that uses the reaction of the current of a river against a fixed tether to propel the vessel across the water. Such ferries operate faster and more effectively in rivers with strong currents, such as the Delaware River. Reaction ferries are numerous at the present time in Germany and Poland.

Some reaction ferries, like the D&H rope ferry across the Delaware River, operated using an overhead cable suspended from towers anchored on either bank of the river. Other reaction ferries use a floating cable attached to a single anchorage that may be on one bank or mid-channel.

At the rope ferry pier on the Pennsylvania shore the Delaware River, two ropes (hawasers), both in the form of a noose, were hung on the rope across the Delaware River. These hawasers on the rope across the Delaware River were movable (they are sometimes called "travelers" on rope ferries), and could easily slip/move. The two hawasers were securely attached to the ferry scow (or to a canal boat), one at the bow and the other at the stern. The two hawasers were not of equal length. The one at the bow was directly below the rope across the river (the shortest distance between the rope across the Delaware and the canal boat); the one at the stern was longer, perhaps by a third, than the hawser at the bow.

With the scow thus positioned at the pier on the Pennsylvania shore of the Delaware River, the down-river current of the river would push the stern down the river as far as the hawser at the stern would allow. This down-river force on the stern of the boat would cause the hawser at the bow of the boat to slide along the rope across the Delaware, in the direction of the New York shore. The forward motion of the boat would thus cause the stern of the boat to return to a position more or less under the rope across the Delaware. The river would again push the stern downstream, which

would again cause the hawser at the bow of the boat to slide along the rope across the Delaware, guiding the boat as it moved in the direction of the New York shore. A rhythm would quickly be established, as the canal boat, using the power/the current of the river, in a series of pulsing movements, tacked across the current and moved across the Delaware River.

The distance that the stern of a boat attached to a rope ferry is pushed downstream by the river (from its initial position directly under the rope across the river to the point where the hawser at the stern of the boat is fully extended) is completely analogous to the distance up or down which loaded and light coal cars or passenger cars were moved on a plane or level by a stationary steam engine on the Gravity Railroad. The current of the river (on the canal) and the stationary engines (on the railroad) are the sources of the power (work performed) that caused forward movement.

The distance between the position of a boat at the point of maximum extension of the hawser at the stern of the boat to the position of the boat at the point of minimum extension of the hawser at the stern of the boat (under the rope across the river) is wholly analogous to the length of a level on the Gravity Railroad. In geometrical terms, the shape of the movement of a canal boat across the Delaware River, by means of the D&H rope ferry, is, therefore, essentially triangular, as is the shape of an inclined plane or level on the Gravity Railroad.

Structurally, then, the D&H rope ferry can be seen as a series of nautical inclined planes by means of which canal boats (which carried from 30 to 50 tons of coal in the period from 1829, when the D&H Railroad and Canal became operational, to 1849, when the Roebling Delaware Aqueduct was put in service and the Rope Ferry across the Delaware River was no longer needed) and the rope ferry scow on the D&H Canal were moved across the Delaware River from the Pennsylvania shore of the Delaware River to the New York shore, and from the New York shore of the Delaware River to the Pennsylvania shore.

If John Jervis and Benjamin Wright, both of whom had engineering credentials of the highest order and who, therefore, understood the importance of using the classical simple machines that were developed by man to facilitate the performance

of work, had not integrated one of those machines, the inclined plane, in the D&H Gravity Railroad and the D&H Canal, respectively, would the D&H have been able to accomplish, efficiently and in a cost-effective manner, the "work" that it did in the nineteenth century? Possibly, but it seems more than likely that they could not have done so. We'll never know.

One thing that we know for certain is that the D&H accomplished, efficiently and in a cost-effective manner, an astonishing quantity of "work" in the course of the nineteenth century. They did so by integrating in that transportation system that John Jervis and Benjamin Wright designed, and which the D&H constructed from the Lackawanna Valley to Honesdale and from Honesdale to the Hudson River, a simple machine, the inclined plane.

### *Demonstrator Duty from page 14*

On our last eastbound trip, the unmistakable sensation of units slipping (losing traction) woke me up as I was asleep in the sleeping car. I hiked up to the head end. We were going to stall and I needed to know why. Was the rail wet? Was the lead unit slipping? Was the trailer working to capacity, etc? So I said to the engineman, "If CP buys this type unit, be sure to specify the "Lead-Unit Power Reduction" option. When just the lead unit is slipping (cleaning the rail), you can knock it down a bit while the trailers keep working. I'll show you".

I had a rheostat partly hooked up in the electric locker, as I anticipated I might need to demonstrate this scheme. Unfortunately I clipped the wire onto the wrong terminal; the lead unit went to idle and we stalled, right in sight of the spiral tunnel entrance.

"So sorry", I said to the engineman. "I think you can lift them when I get both units back on line?"

"Oh sure", he said. "We will get them going". And he did. And I think they did order the Lead-Unit Power Reduction option.

More importantly, CP Rail did place on order with MLW for M630 locomotives. I was fortunate to be invited on a trip to Calgary to ride a consist of the newly-acquired locomotives, which were initially dedicated to western service in the Rocky Mountain Region.

27. "The Gravity-gauge Steam Locomotive "Honesdale" by S. Robert Powell. This article was published in the January 2022 issue of the *Bridge Line Historical Society Bulletin*, pp.11-12:

*For the Record*  
**The Gravity-gauge Steam Locomotive "Honesdale"**  
by S. Robert Powell, Ph.D.

A photograph of D&H engine no. 3 was published on page 17 of the October 2021 BLHS *Bulletin*. This 0-4-0 switcher was built in 1861 by W. Cook, Scranton, and was retired in 1899. Over the years, the engine had four different names: *Terrapin*, *Col. Ellsworth*, *Fire Plume*, and *Honesdale*.

There were five Gravity-gauge D&H steam locomotives:

- "Major Sykes" (0-4-0, built in 1860 by W. Cook & Co., Scranton; rebuilt by the D&H in 1872 at the Green Ridge shop, changing in type from 0-4-0 to 0-6-0);
- "C.P. Wurts" (4-4-0, built in 1860 by W. Cook & Co. and sold to the Dickson Locomotive Works in 1874);
- "Honesdale" (0-4-0, built in 1861 by W. Cook & Co., retired in 1899);
- "Lackawanna" (0-6-0, built in 1862 by Dickson Locomotive Works, scrapped in 1899); and,
- "I.N. Seymour" (4-4-0, built by the New Jersey Locomotive and Machine Co. in 1866; blew up on March 10, 1879 in the Carbondale roundhouse, and sold to the Dickson Locomotive Works).

Photographs of all five of those engines are in the holdings of the Carbondale Historical Society.

Those five engines saw service, for varying periods of time, at the foot of Plane No. 23 ("G" Plane) in Olyphant, on the flat-land Gravity Railroad. The "Honesdale" and "Lackawanna" were found to be too small to serve effectively on the flat-land Gravity Railroad, and were taken to Honesdale, where they served as switcher engines at the head of the D&H Canal. (The "Lackawanna", a hard coal burner that was used only in the summer, moved coal from the storage pile – popularly known as "the contract" – on the hillside above the canal basin to the transfer pockets at the north end of the yard, a distance of about a half-mile.)

How did those two engines get from Olyphant to Honesdale? Possibly they were moved through the Gravity system of planes and levels? Possibly they were

placed on wagons and hauled over the Moosic Mountain to Honesdale? The immense technical difficulties to be overcome in sending those locomotives through the Gravity system argue against such an endeavor, and it seems more than likely that the "Honesdale" and the "Lackawanna" were loaded onto wagons for the trip to Honesdale. (Railroad engines were frequently moved by wagons in the 19th century. All of the engines built by the Dickson Locomotive Works prior to the extension of the D&H line to Vine Street, Scranton in 1863, for example, were transported from the Dickson Locomotive works to Providence on heavy wagons, drawn by horses and mules.)

The wagon trip to Honesdale from Olyphant for the "Honesdale" and "Charles Pemberton Wurts": Regular readers of the *Bulletin* will recall that Charles Pemberton Wurts (one of the sons of George and Abigail Pettit Wurts, and nephew and adopted son of John Wurts, third president of the D&H) served as Superintendent and Chief Engineer of the D&H Railroad from 1853 to 1864, and that under his direction the 1859 configuration of the Gravity Railroad was built.

Knowing, as he surely did, that members of the general public were hopping onto Gravity coal cars, loaded and light, and taking a ride for pleasure, as those cars were moved on the Gravity planes and levels on the Moosic Mountain and in the Lackawanna Valley, C.P. Wurts conceived the idea of establishing passenger service on the Gravity Railroad. To test the idea, he did what had to be done, and organized an experimental trip of "a passenger car" from Carbondale to the foot of Plane No. 21 ("C") in Archbald in 1859. In an account of early passenger travel on the Gravity Railroad in the archives of the Carbondale Historical Society, we read:

"In 1859, the first passenger car to be run over the Gravity line in the Lackawanna Valley made a trip from Carbondale to the foot of Plane C in Archbald. On this experimental trip, Hugh Powderly served as engineer, fireman, conductor, and brakeman. This first passenger car was like the cars with the side seats now used some-

times on excursions. A car, loaded two-thirds full with culm and saturated with water to keep it from flying into the passengers' faces, was run in front to give impetus on the levels. On this trial trip were C. P. Wurts and family [emphasis added], Lewis Pughe and family, E.P. Garland and family, Israel Decker and family, and Davis Alton, who was then general coal inspector for the D. & H.

Hugh Powderly was in charge of the culm car, and was thus engineer, fireman, conductor, and brakeman. The trip ... to the foot of Plane C, now known as Plane 21, at Archbald, was made in 23 minutes. This time proving satisfactory, and passenger cars were ordered to be built. The only persons now living in this city [Carbondale] who were on that trip are Mrs. Frank Taylor, then Mrs. Isaac Decker, and Mr. Powderly".

Beginning in 1859, it will be recalled, regular shipments of coal from Olyphant to Carbondale and to Honesdale (and the return of empty coal cars from Carbondale and Honesdale to Olyphant) were made daily by the D&H. Given the success of the initial passenger run from Carbondale to Archbald (initiated by C.P. Wurts and described above), an experimental passenger run farther down the Lackawanna Valley was made by the D&H in mid-November 1859 "to the new village of Olyphant". In an article titled "Railroad Communication" that was published in the *Carbondale Advance* of November 12, 1859, we read (p. 12):

"**Railroad Communication.** / We understand a party of our people were favored with a ride upon the extension of the Company's Railroad to the new village of Olyphant. A more general party took a similar excursion on Wednesday [9th], and on Thursday [10th] another, including all that had notice, leisure and inclination for the trip. A comfortable passenger car has been provided, well seated, and the trip we learn is made very safely and pleasantly in less than hour. Regular trips are not proposed to be made at present, but will probably [be made] within a few months [when] the further extension of the road to Providence is completed. This will bring us by Rail-

road within 2½ miles of the Scranton Depot. It will be a great point gained, but not quite all that is desirable. / There seems to be no chance for but one opinion in regard to the Railroad as it now is, in its whole extent from Honesdale to Olyphant. It is a very superior road – wisely planned and substantially constructed. Its arrangements and appointments for business are in every way excellent, and its capacity is undoubtedly equal to 6,000 or 8,000 tons per day. / With such a road, and the large quantities of coal secured, of a quality equal to the best Anthracite in Pennsylvania, the basis seems to be laid for a large and prosperous business for at least a century". (*Carbondale Advance*, November 12, 1859, p. 2)

Regular passenger service to Olyphant / the foot of Plane No. 23, not surprisingly, was established by the D&H in late November 1859. That we know from the fact that there is an article in the November 19, 1859 edition of the *Carbondale Advance*, in which it is stated (1) that regular passenger trips were made during the week preceding the 19th; and (2) that those runs were popular with the traveling public:

**"The Car.** – The Passenger Car to Olyphant has made regular trips throughout the week, running generally with full loads each way. It seems to be a popular institution, and bids fare to be a permanent one. The extension of the Road to Providence, and the large population setting along the line from Carbondale down, will make some cheap mode of transit to and from this place indispensable." (*Carbondale Advance*, November 19, 1859, p. 2)

Passenger travel by rail was an entirely new idea for most mid-19th century residents in the coal fields of northeastern Pennsylvania, especially when the proposed passenger cars were going to travel up and down relatively steep inclined planes and across rivers and valleys on high trestles, and many believed that traveling by means of such a system of transportation was not a safe way to travel. To demonstrate / prove to one and all that travel by the D&H Gravity Railroad in the Lackawanna Valley was a safe mode of travel (and to drum up business in Carbondale for the D&H passenger service up and down the Lackawanna Valley), C.P. Wurts organized a remarkable publicity stunt to prove to residents of the upper Lackawanna Valley, and of Carbondale in particular, that the Gravity system was a completely safe way to travel, even when the Gravity passenger

cars traveled over long and high levels and trestles, such as those on Level No. 27 from the top of the mountain at Archbald to downtown Carbondale to the foot of Plane No. 28.

For the purposes of this stunt, C.P. Wurts arranged to have a train of passenger cars from Olyphant pulled by a Gravity-gauge steam engine across the long trestle at the entrance to Carbondale. The steam engine was not really necessary to cause forward movement of the cars, because the cars would have moved by gravity down the level without the engine. The steam engine was added to make the point that the trestle was safe, even with a heavy steam engine on it.

We learned about this stunt from an article that was published in the December 14, 1861 issue, p. 2, of the *Carbondale Advance*:

**"Distinguished Visitor.** / *New Era.* / Yes, reader! An Iron Horse has actually run into our City [Carbondale], puffing and snorting, and stopped at about the same spot where the first settlers stopped, near the site of the old Log Tavern. / An inkling was had that it would come on Monday last, but our people supposing it would bring the noon passenger train, missed the sight, and consequently failed to give the stranger a public reception. / As it was however, *a crowd of about a thousand, lined the track from the lookout to the depot, and made all ring again with their cheers* [emphasis added]. / It was an experimental trip and entirely successful under the careful management of Engineer Cool. *We noticed C.P. Wurts, Esq. the master machinist, and other employees on the Valley Line, on the Engine* [emphasis added], showing the travelling community thereby that no passengers should be sent over the road, until it had been tested properly and they have confidence in the strength of the various pieces of trestle work on the line". (*Carbondale Advance*, December 14, 1861, p. 2)

What was this "iron horse", and how did it get to Level 27 south of Carbondale? It was not an engine that came to Carbondale via the D&H steam line from Scranton: that was a standard-gauge steam line. Furthermore, that line did not open until 1871. Where did that Iron Horse that came into Carbondale via Level No. 27 on the Gravity Railroad in December 1861 come from?

We now believe that the steam engine in question was the "Honesdale", which

was brought north from Olyphant on a wagon and placed on the rails of Level No. 27 in Carbondale Township, south of the Lookout, and watched by more than a thousand spectators as it pulled a passenger train across the long level over the Lackawanna River at the entrance to Carbondale and to the foot of Plane No. 28 in downtown Carbondale, and in so doing demonstrated to the traveling public that this trestle (and by extension all trestles) on the Gravity passenger line into Carbondale (and on the entire Gravity system) were perfectly safe.

[The steam engine in question was not the other Gravity-gauge steam locomotive that was moved to Honesdale from Plane 23. That engine, the "Lackawanna", was not built until 1862.]

Having accomplished the publicity objectives of C.P. Wurts, and having proved to any skeptics that the trestle on Level 27 into Carbondale was safe, even for a steam engine, which was much heavier than any passenger coach would be, the "Honesdale" was again placed on a wagon, following its triumphant entry into Carbondale, and transported to the D&H docks in Honesdale, where it was used as a switcher engine until 1899, when it was retired.

Such then is the biography of D&H engine no. 3, the "Honesdale", an 0-4-0 switcher that was built in 1861 by W. Cook, Scranton, and which made a guest appearance in the October 2021 issue of the *Bulletin* in a photograph on the bottom of page 17.

D&H-BLHS-D&H-BLHS-D&H-BLHS-D&H-BLHS-D&H-BLHS-D&H-BLHS-D&H



Page 13:

**Top:** D&H RS11 #5010 and Reading-paint #7408 team up as pushers on a southbound to conquer the Ararat grade south of Lanesboro, PA. June 1976. Caption and photo by Bob Bahrs.

**Bottom:** Now-retired D&H dispatcher Bob Lawyer, working the North End in January 1974. Photo by Geoffrey Hubbs, collection of Gordy Smith.

28.” D&H Coal Breakers and Collieries” by S. Robert Powell. This article was published in the March 2022 issue, pp. 15-17, of the *Bridge Line Historical Society Bulletin*:

*For the Record*

## D&H Coal Breakers and Collieries

by S. Robert Powell, Ph.D.

### Breakers and collieries

Breakers were a regular feature of the anthracite mining landscape in Northeast Pennsylvania in the nineteenth and twentieth centuries. What took place in those breakers? When were breakers invented? Who worked in them?

A *breaker* is a coal processing facility in which coal as it comes from the mines is broken, separated by size, and cleaned. Most breakers were several stories in height and had numerous breaking and screening processes and mechanical sorting devices in them. Most, but not all, breakers were located in *collieries*.

A *colliery* (a synonym for *collier* is *coal miner*) is the entire physical plant (mines, one or more breakers, mining machinery, rail lines) where coal is mined, cleaned, separated by size, and placed in rail cars or trucks which convey it to a transportation system by means of which it is carried to market. A colliery can range in size from a small operation – one mine with only the requisite supporting needs – to an enormous, sprawling plant consisting of miles of rail, huge breakers, power stations with dozens of ancillary buildings, and on-site housing for the miners and their families. A colliery can be as large as a town; indeed, many towns exist only because of the presence there of a single colliery. In 1875, the Delaware and Hudson Canal Company owned and worked twenty-nine collieries between Carbondale and Plymouth.

Breakers were invented in the 1840s in the Schuylkill coal field in Pennsylvania. The D&H transportation system opened on October 9, 1829. In 1858-1859, the first D&H breaker, the Racket Brook Breaker, was built. How was D&H coal prepared for market before the Racket Brook Breaker was built?

In J.A. Clark's *The Wyoming Valley, Upper Waters of the Susquehanna, and the Lackawanna Coal-Region...*, (Scranton: J. A. Clark, publisher, 1875) we read: “[Before 1858-1859] ‘all the coal taken out [of the mines] at Carbondale was upon platform cars, three boxes on each, holding respectively five hundred pounds, which were dumped by hand power, two men

doing the work. The coal was then transported to Honesdale, where it was run over grate bars, which was the only means of assorting it.” As such, the coal that was shipped from Honesdale from 1829 to 1858/59 (when the first D&H breaker was built) was largely “lump” coal.

In H. Hollister's *History of the Lackawanna Valley*, 1885, pp. 160-164, we read: “No one residing in the coal region can forget the time when no other kind of coal was seen or sold but lump coal. The miner or laborer immured with pick and drill in his lengthened chamber, broke up the large lumps in the mines simply to facilitate easier loading into mine cars. In this form, anthracite was carried to market and broken only as it was used without waste... Each piece was fractured by hand with the same patient labor that wood, drawn from the forest in logs or tree tops, required strokes from the axeman to fit it for the fire place...”

### First breaker

Joseph Battin, a supervisor at a coal gas manufacturing plant in Philadelphia, invented the coal breaker in 1843. It consisted of two cast iron rollers, one with teeth and one with holes to accept the teeth. The teeth in one roller were placed in such a way that when it revolved the teeth would fit into the empty spaces between the teeth in the other roller. The two rollers moved in opposite directions.

The rollers were not the most important parts in Battin's idea; what he wanted was a machine to break and screen coal at the same time. Therefore, on the top of the rollers he built a hopper for the coal to pass from the rollers to a long screen hung in an inclined position. The screen had a mesh, which was fine toward the front and became progressively less so toward the end. Larger chunks of coal, falling inside the cylinder as it rotated, broke up and eventually passed through the screen. Impurities, which were heavier, tended to exit the breaker at the end of the screen. The sorted coal would then be collected in bins below the screen, and then transported to market.

On October 6, 1843, Battin obtained a

patent (No. 3292) for a “coalbreaking machine”. In an article by Edward Pinkowski (“Joseph Battin, Father of the Coal Breaker”) that was published in the *Pennsylvania Magazine of History and Biography* (Volume 73, issue 3, July 1949), Pinkowski states:

“Hardly anyone in the anthracite region who bends over the iron-teethed rollers that crack the coal and the screens that sort it into various domestic sizes has ever heard of Joseph Battin. This anonymity is strange, for more than anyone else, Battin has left an indelible mark on the hard coal country in northeastern Pennsylvania with his invention of the coal breaker. His name should rank with James Hargreaves, Edward Cartwright, and Eli Whitney, for *his invention probably contributed as much to the Industrial Revolution as the spinning jenny, the power loom, and the cotton gin*” [emphasis added]. (p. 337)

### First breakers in northeastern Pennsylvania

The first breaker in the Northern Coal Field was built in 1852/1853 at the Delaware, Lackawanna and Western Railroad's Diamond Mine in Scranton. The second breaker in the Northern Coal Field was the Von Storch Breaker, which was erected in 1857. In 1858-1859, the first D&H breaker, the Racket Brook Breaker, was built at Plane No. 4 on the D&H Gravity Railroad.

### Using the force of gravity

The force of gravity was central to the effective and practical functioning, not only of the Delaware and Hudson Canal Company's Gravity Railroad and Canal, but also in the effective and practical functioning of a coal breaker, to wit: coal cars from the mines were moved to the top of the breakers and dumped into the breakers. The force of gravity, therefore, was used to process the coal as it moved downward through the breaker.

At the top of the breakers, no two of which were identical in design, the coal was dumped into hoppers and then passed over iron bars to separate the largest pieces of coal and rock. The coal, under the force of gravity, then moved downward through various kinds of sorting and break-

ing devices and rollers, and across screens that removed a high percentage of the impurities from the coal as it came from the mines and sorted the coal by size.

In the last stage of the process, the coal passed down through banks of chutes that ran between the legs of the seated "breaker boys", who were young boys or disabled/infirm former miners, who removed any remaining slate or other impurities by hand, casting the refuse into a waste chute. Moving downward from the slate pickers, the coal fell onto sorting screens, from which it passed downward to storage bins, where it was stored by size.

Different markets/end uses of coal required different sizes of coal. The sorting by size is particularly important for anthracite coal, because anthracite burns most efficiently when the pieces of coal to be burned are more or less of the same size, which allows air to flow evenly around the coal. In the third decade of the twentieth century, there were nine commonly accepted sizes of D&H coal: lump, broken or grate, egg, stove, chestnut, pea, buckwheat, rice, and mustard seed.

#### Bigger and bigger

In June 1867, the Delaware and Hudson Canal Company was building what was said to be the largest breaker in the Lackawanna Valley, the Lackawanna Breaker in the D&H's Carbondale yard, with the capacity of preparing twelve hundred tons of coal for market daily. When the breaker was running to its fullest capacity, the mines about it and the breaker gave employment to about six hundred men and boys. In March 1876, more coal was mined and prepared for market daily at the Lackawanna Breaker than at all the other D&H mines at that time. Some of the coal produced at the Lackawanna Breaker was shipped north out of Carbondale over the Jefferson Branch of the Erie Railroad (which opened in 1870), but most of it was sent over the Gravity Railroad to Honesdale.

In 1880, the Coal Department of the Delaware and Hudson Canal Company was under the Superintendence of A.H. Vandling. At that time, under his direction, were the following collieries in the Lackawanna and Wyoming Valleys: No. 1 Shaft, No. 3 Shaft, Powderly, Racket Brook Breaker, Coal Brook, Erie, Jermyn No. 1, Jermyn No. 2, Jones Simpson & Co., White Oak, Grassy Island, Olyphant No. 1, Olyphant No. 2, Elk Hill Coal Co., Mar-

vine Shaft, Leggett's Creek, Von Storch Riley & Co., Park Coal Co., Jermyn's Breaker, Coray, Spring Brook, Pleasant Valley, Mill Creek, Pine Ridge, Laurel Run, Baltimore Slope, Baltimore Tunnel, Plymouth No. 1, Plymouth No. 2, Plymouth No. 3, Plymouth No. 4, Plymouth No. 5, Young Slope.

In 1897, the D&H operated the following breakers: Leggett's Creek, Marvine, Eddy Creek, Olyphant No. 2, Grassy Island, White Oak, Jermyn No. 1, No. 1 Shaft, Powderly, No. 2 Shaft, Coal Brook, Racket Brook, Clinton.

The production numbers for breakers are always astonishing. In the late 1920s/early 1930s, at the Hudson Coal Company's Marvine Breaker and Loree Breaker No. 5, six thousand tons of anthracite coal (150 railroad cars) per day were produced at each of those breakers and sent to market.

#### Many jobs, many titles

From the 1924 "Schedule of Rates of Wages, Local No. 1132, United Mine Workers of America" for the Hudson Coal Company's Loree Colliery No. 5, at Larksville, PA, we learn the job titles for all of the employees at that colliery at that time:

INSIDE: Engineer, Plane; Engineer, Crab; [3] Engineers, Electric Locomotive; Pumpmen; Tracklayer; Tracklayer Assistant; Timberman; Timberman Assistant; Bratticeman; Bratticeman Assistant; Mason; Mason Assistant; Chargeman; Laborer, first class; Blacksmith; Pulleyman; Headman; Boss Footman; Footman; Locomotive Brakeman; Locomotive Brakeman Helper; Barn Boss; Runner, first class; Runner, second class; Team Driver, three mules or more; Mule Driver, alone; Mule Driver, first class; Mule Driver, second class; Mule Driver, third class; Car Oiler; Chain Hoist Boy; Machine Miner; Machine Mine Laborer; Machine Mine Laborer Leader; Machine Runner; Machine Runner Helper; Scraper Boss; Scraper Man; Scraper Engineer; Doorboy; Consideration Miner; Consideration Laborer; Company Miner; Company Laborer.

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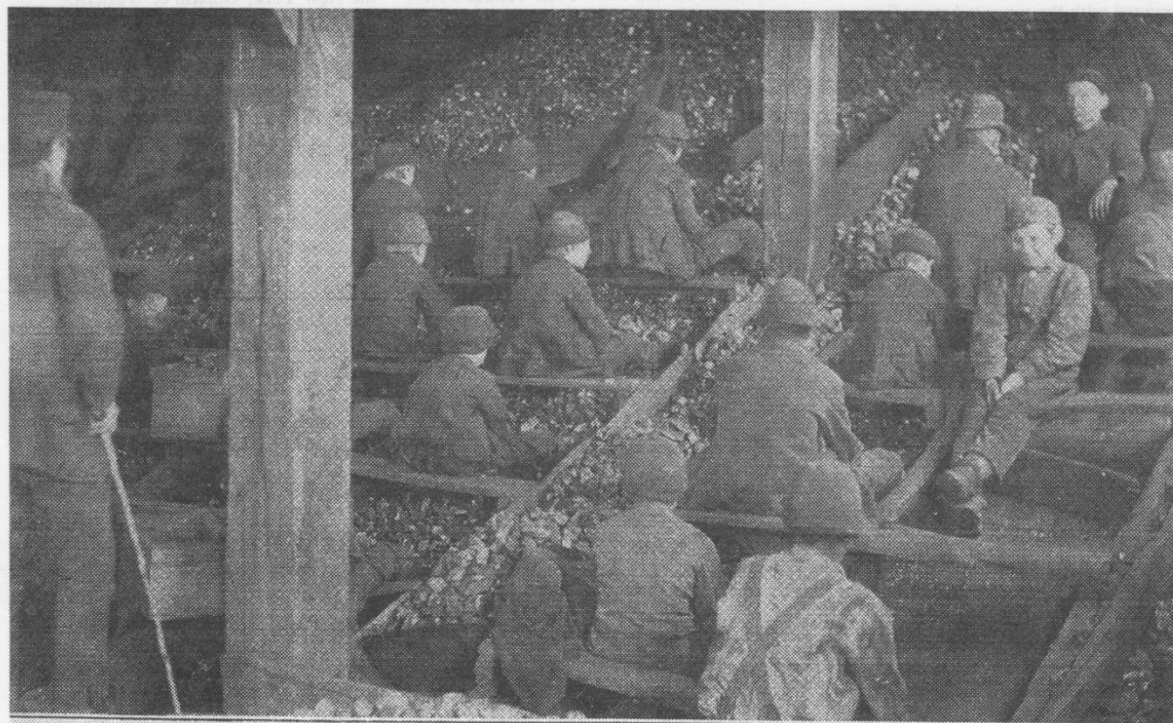
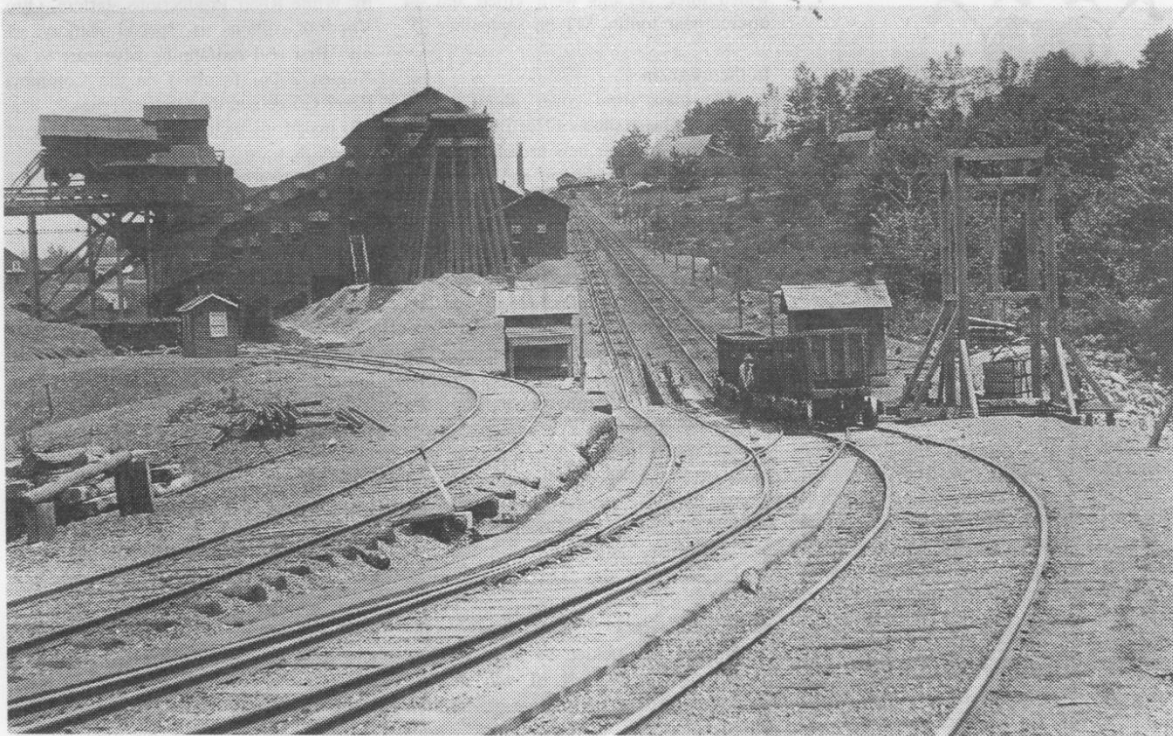
Much remains to be said about the Delaware and Hudson / Hudson Coal Company breakers and collieries, and in this column in the April issue, we will again focus on the breakers and collieries in the Delaware and Hudson production and transportation system between the anthracite coal fields of northeastern Pennsylvania and New York City and beyond.



Page 17:

**Top:** Racket Brook Breaker and Plane No. 4 on the D&H Gravity Railroad. The track on the left is the access track on which the loaded coal cars from the mines were drawn up the plane and then dumped into the top of the breaker. The track on the right is the loaded track to Honesdale, up which were drawn cars with processed coal on their way to market, as well as passenger vehicles heading east. Image provided by S. Robert Powell, PhD.

**Bottom:** Breaker boys at work in an anthracite breaker. Notice the supervisor, with stick/cane in hand at the far left. The boy at the right, facing the camera, may be on a break. Among the "boys" in this photo are three adult men who, either because of age or an injury, are here working with the boys as they remove impurities from the coal. Image provided by S. Robert Powell, PhD.



INTERIOR OF BREAKER. BOYS AT WORK. SCRANTON, PA.  
BLHS *Bulletin* - March 2022

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**OUTSIDE:** Engineer, Shaft; Engineer, Fan; Engineer, Breaker; Engineer, Locomotive; Engineer, Washery; Barn Boss; Fireman; Ashman; Fuelman; Pumpman; Teamster; Blacksmith; Blacksmith Helper; [2] Carpenters; Carpenter Helper; Machinist; Machinist Helper; Machinery Attendant; Breaker Machinist; Docking Boss; Headman; Dumper; Propman; Laborer, first class; Laborer, second class; Car Cleaner and Patcher; Car Runner; Car Loader, Gondolas; Car Loader, Box Cars; Washery Loader Boss; Breaker Loader Boss; Repairman; Yard Driver; Siltman; Jig Runner; Breaker Cleaner; Picker, first class; Picker on Pure Coal; Picker on Jig Refuse; Picker on Jig Coal; Breaker Oiler; Engineer, Crab.

Much remains to be said about the Delaware and Hudson / Hudson Coal Company breakers and collieries, and in this column in the April issue, we will again focus on the breakers and collieries

in the Delaware and Hudson production and transportation system between the anthracite coal fields of northeastern Pennsylvania and New York City and beyond.

\* \* \* \* \*

29. Fossils, in the collection of the Carbondale Historical Society, that were found in anthracite coal mined in the Carbondale area:

Email sent to the membership of the Carbondale Historical Society by S. R. Powell on March 4, 2022:

March 4, 2022

Dear Colleagues:

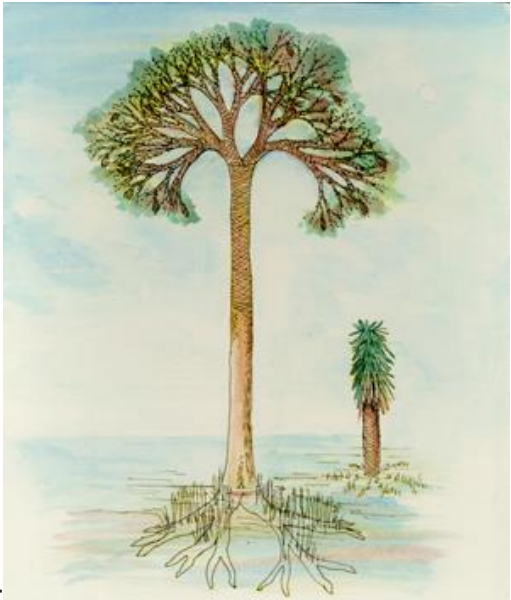
We have in our anthracite mining collection at City Hall, several fossils that were found in anthracite coal deposits in the Carbondale area.

Thanks to Tim Gombita of Waymart, who recently visited the exhibition galleries of the Carbondale Historical Society, we now know some very interesting facts about those fossils in our collection.

They are Lycophyte fossils (of the *Lepidodendron* tree) that are commonly associated with coal seams, and they were formed during the Pennsylvania and Permian periods, 323.2 to 298.9 million years ago.

**Three hundred million years ago, right here in Carbondale!** Not last week or two years ago, but 300 million years ago!

Stop by, and have a look....



30. Photo of D&H Train in Carbondale, April 19, 1976, that was posted by Don Hodun in the Delaware and Hudson Facebook group on March 19, 2022:



D&H Train in Carbondale, April 19, 1976

Don Hodun: April 19, 1976: a few shots of around the upper Lackawanna valley

**Silas Robert Powell:** Photo of southbound train through Carbondale, NYO&W trestle and Our Lady of Mount Carmel church in the distance, on the right.

**Justin Jankauskas:** Fleetwood factory in the background.

31. Photo of D&H Roundhouse (Kingston? Wilkes-Barre?) that was posted by John Cudo on Facebook, March 22, 2022. He asked: Which is it? Kingston or Wilkes-Barre?

SRP: The D&H roundhouse was in Wilkes-Barre. Kingston is across the Susquehanna River from Wilkes-Barre.



32. In March 2022, the Carbondale Historical Society was asked by the Lackawanna and Wyoming Valley Railroad chapter ("The Laurel Line") of the NRHS to submit a photograph for the 2023 L&WVR calendar. S. R. Powell submitted the photograph shown here to Norm Brauer on March 26, 2022: "Norm: Caption and jpg of photo attached./ We are very pleased and honored to be asked to participate in this project. / Thank you."



**Junction, at Olyphant, of the loaded and light tracks on the Delaware and Hudson Gravity Railroad.** Photo taken in 1860 by the Scranton photographer, Thomas H. Johnson. Plane No 23, on the Loaded Track, also known as “G” plane, is the plane on the left, that ascends the hill, at the top of which can be seen the smokestack of the stationary steam engine that powered the plane. The upper portion of this plane is present-day Gravity Avenue. Two strings of loaded cars are at the base of this plane, ready for shipment to Honesdale. The tracks at the center left are the end of Plane No. 22 on the light track (empty cars being returned to Olyphant from Honesdale). The Eddy Creek Breaker is on the right. Two tracks from the breaker come down from the breaker a short distance and then connect up with the D&H Gravity tracks at the junction of the loaded and light tracks. At the foot of Plane No. 23, the D&H Gravity Railroad also connected with the Valley Road (a steam locomotive line to Providence, and points South). Photo in the collection of the Carbondale Historical Society and Museum).

33. Photo by Jim Shaughnessy of the D&H *Laurentian* that was posted on Facebook in the Delaware and Hudson group by Gordon Smith on March 30, 2022:

[Delaware and Hudson Railroad](#): [Gordon Smith](#): “This is a Jim Shaughnessy photo that was posted on Geoffrey Hubbs Flickr page. There’s so much to see in this photo of the southbound *Laurentian* in Troy Union Station.”



“This is a Jim Shaughnessy photo that was posted on Geoffrey Hubbs Flickr page. There’s so much to see in this photo of the southbound *Laurentian* in Troy Union Station.”

34. “Anthracite Coal Clarifications” by S. Robert Powell (*BLHS Bulletin*, April 2022, pp. 16-18, 20-21):

## For the Record

### Anthracite Coal Clarifications

by S. Robert Powell, Ph.D.

"Anthracite coal is heavier than all rocks".

"Anthracite coal will float in water".

"Anthracite coal is blue".

"Scatter tags were randomly mixed with coal when it came from the breakers".

"Everyone who worked in the mines was a miner".

Anyone associated with an historical organization in the anthracite coal region of northeastern Pennsylvania invariably collides with some remarkable "facts" about anthracite coal that are voiced by present-day visitors to those organizations. Those among us who are interested in establishing a factual account of history, and who are affiliated with an historical organization, must therefore filter out and/or clarify what they are told by well-meaning but imperfectly educated visitors to those organizations.

#### Anthracite coal is not as heavy as a rock

One of the displays at the Carbondale Historical Society is a large chunk (maybe 10 pounds) of anthracite coal. When visitors stop at this display, we always ask them to pick up that chunk of coal, and state whether that chunk of coal is lighter or heavier than a rock of the same size. Not surprisingly, almost everyone gets it right: "A rock that size would be heavier. Wow, that's amazing. I always thought coal was much heavier than rock". Little boys, who usually have a lot of first-person experience in picking up and throwing rocks, always get it right.

#### Anthracite coal will float in water: Yes and No

Under "normal" conditions, a shovel full of anthracite coal, for example, when dumped into a pail of water, will immediately sink, as we all know. So where and when did the popular belief that coal will float in water originate?

Answer: In Scranton, PA and in the Northern Coal Field in Pennsylvania in the early twentieth century. There, beginning in 1916, experiments with machines using an upward current of water to separate crushed anthracite coal from rock and for

cleaning coal for market were carried out. And then, in the early 1930s, remarkably, the Hudson Coal Company began, with great success, to cone-clean anthracite coal, and in so doing, anthracite coal floated in water. In a pamphlet titled "Mining and Preparation of Anthracite" that was published by the Hudson Coal Company in Scranton, PA in 1931, we read:

*"D&H Anthracite is Cone-Cleaned.* Innumerable manual and mechanical methods have been used to prepare coal. The most modern, most effective and most reliable process devised for cleaning coal is the amazing new invention adopted by the Hudson Coal Company for cleaning D&H Anthracite. It is known as *Cone Cleaning*. The run-of-mine coal enters huge metal cones, filled with a mixture of sand and water. This mixture of sand and water is kept agitated by revolving paddles, and the density of the mixture actually floats the pure coal.... Impurities sink, and are discarded. Just as simple as separating wood and stone in water, yet a remarkable scientific discovery that has revolutionized the preparation of Anthracite. Burn D&H cone cleaned anthracite to insure home comfort. PURE COAL FLOATS — THE REST SINKS".

In 1932, W.C. Menzies, a mechanical engineer from Scranton, installed an experimental cone unit at the Nottingham Colliery, owned by the Glen Alden Coal Company, in Plymouth, PA, and in that Menzies cone, coal floated in water. Why does coal float when placed in such a cone? How does a Menzies cone work? Crushed run-of-the mine coal enters huge metal cones, filled with a slurry mixture of water and magnetite. This slurry has a high specific gravity. The mixture is kept agitated by revolving paddles, and the density of the mixture makes it possible for the lighter coal to float, and the rock and the coal with a lot of rock in it to sink to the bottom, where it is discarded.

In 1934, Menzies formed the Menzies Separator Company, and began selling the cones commercially. Fourteen units, each with a capacity of treating one ton per hour per square foot of area at the top of the cone, were installed in the Huber Breaker,

operated by the Blue Coal Corporation, in 1939, and those cones were the principal coal washing units at the Huber Breaker until the late 1950s, when new technology complemented their use. So, yes, anthracite coal in plain water will sink, but if you put anthracite coal in a cone-cleaning device, such as a Menzies cone, it will float.

#### Anthracite coal is near-black or very dark gray, very shiny, and has a glass-like consistency

No. Anthracite coal, the highest grade of coal, as it comes from the mines, is not blue, but because of its high carbon content, anthracite coal does produce a blue flame when it is burned. (As air flows over hot charcoal, the carbon is partially oxidized, forming carbon monoxide. This then burns with a classic blue flame.)

*continued on page 18*

#### Page 17:

**Top left:** D&H Hudson Coal logo; color is orange lettering on black circle, but black script "The D&H" on the orange center circle.

**Top right:** The D&H's Lackawanna Anthracite coal logo. Color is orange "Lackawanna Anthracite", with black "The D&H" on orange center roundel.

**Center left:** The Pennsylvania Coal Co. used this logo for its Pittston Jet Black Anthracite coal. Black and white reverse-color lettering, but with a red border around "Pittston".

**Center right:** The DL&W's logo for its "Scranton Standard Anthracite blue coal" was blue on light grey, as was the lettering.

**Bottom:** The front and back of the D&H Hudson Coal "scatter tags". Color is black lettering on orange, but "Hudson Coal" was black on orange. Did you notice the "The HCCo." script? All items on this page provided by S. Robert Powell, Ph.D.



Capitalizing on the well-known fact that anthracite coal does produce a blue flame when it is burned, the Blue Coal Corporation, a subsidiary of the Glen Alden Coal Company, in order to develop a market niche, sprayed its processed coal with a blue iridescent chemical and marketed it as "Blue Coal".

#### **Our coal is better than your coal**

There are different grades of anthracite. The higher the carbon content, the better the quality of the coal. Most anthracite coal from northeastern Pennsylvania was very high quality coal, and the difference between the coal that was mined and marketed by the various coal companies was slight; yet, the various coal companies made a special effort to let customers know that their coal was better than that offered by their competitors.

The coal companies made a conscious effort to distinguish their coal from all other coal on the market, and to let potential customers know that their coal was the coal to buy by naming their coal: the D&H / Hudson Coal Company, for example, marketed their coal as "Lackawanna Anthracite" and "Hudson" coal; the Pennsylvania Coal Company marketed their coal as "Jet Black Anthracite" and as "Pittston Coal".

#### **Scatter tags**

Another way that coal companies operated to encourage potential customers to buy their coal was by the use of scatter tags. Shown with this article are two Hudson Coal Company scatter tags (1½" in diameter), on which re-order information for Hudson Coal is given.

Some people believe, erroneously, that these tags were randomly mixed in the coal as it came from the Hudson Coal Company breakers. That is not true. These tags were scattered about on the floor of empty or nearly empty domestic coal bins by Hudson Coal Company dealers before they filled those bins. That way, when the customer's supply of coal got low, he would come across these tags, pick one up, and be reminded that it was now time to contact his Hudson Company dealer and order a load of coal. Advertising in the bottom of your coal bin! What an astonishing idea! (As a young boy in a house heated by anthracite coal, and whose job it was to make sure that there was a good

supply of coal at all times at the front end of the coal bin where it could be easily fed into the furnace by an adult, I well remember the excitement of finding the first scatter tag on the floor of the coal bin, and the quick trip up the cellar stairs to report the find.)

#### **"To keep everybody honest"**

An interesting corollary to the spraying of coal for market/customer identification purposes developed over the years in the anthracite coal fields: spraying the surface of loaded coal cars for security purposes. To wit: Loaded coal cars from the breakers, especially when those cars were stored in great numbers in the railroad yards and awaiting shipment to customers, were easy targets for pilfering by the general public. In darkness, petty thieves would climb up on top of a loaded coal car/hopper, push off some or all of the top of the load onto the ground beside the car, and take it home.

To identify coal cars from which coal had been pilfered, many coal companies sprayed the surface of loaded coal cars as they came from a breaker with a chemical, and that defined the surface of the loaded coal car. If any pilfering from a car that had been so sprayed took place between the time when that car left the breaker and the time when it was sent to market, the surface color pattern would have been compromised, and the customer would immediately see that he was not getting a full car. (We learned many years ago about this procedure of spraying for security purposes from the late Jack Gillen of the Gillen Coal Company of Carbondale. In response to my question, "Why did they spray the surface of the loaded coal cars at many of the breakers with a colored chemical?", he replied, "To keep everybody honest".

#### **Everyone who worked in the anthracite industry, many people erroneously believe, was a miner**

In the March 2022 issue of this publication, we took a look at Loree Colliery No. 5 in Larksville, PA, and listed the job titles (approximately 200) for all of the inside and outside employees at that colliery at that time; in that list we do not see *Miner*. Yet, if you were to ask a descendant of any of those colliery workers where their grandfather worked and what he did, they would, more likely than not, declare that he was a miner, and worked "in the mines in Larksville".

Just because you worked in the mines or in a colliery did not make you a *miner*. To become a miner, one had to be certified by a board of mining examiners. There were three classifications of miners (contract miners, consideration miners, and company miners) in the anthracite industry of northeastern Pennsylvania.

#### **Contract miner**

The contract miner worked on a piece-work basis, being paid a fixed rate per mine car or mine ton of coal produced and, in some cases, a lineal yard rate. In the anthracite industry, most miners were contract miners/piece workers. The contract miners were the elite of the laboring class.

Miners' helpers ("labourers") were hired and paid by the miners. The helpers handled and loaded the mine cars at the breast [working mine face], split blocks of coal, sorted out waste material, and aided the miner in setting props and other tasks. The skilled miner was at the top of the underground hierarchy. He generally worked as an independent contractor, supplying his own tools, powder, and helper, and was paid a fixed price per carload of coal. The miner directed the opening and advancing of the breast, determined how to cut the coal, and when and how to prop the roof.

#### **Consideration miner**

Under abnormal conditions, such as a diminution in the thickness of the coal seam and an undue increase in the amount of rock to be handled, it was impossible for the contract miner to earn a fair day's wage by the exertion of reasonable efforts. In such instances, he might be placed on "consideration" basis and paid a fixed daily or hourly rate of wages so long as those conditions existed.

#### **Company miner**

The company miner was paid on a daily or hourly basis. He did various kinds of work of a general mining nature, such as blasting rock, driving gangways through caved ground, and so on.

#### **Summary**

Be it known, therefore, that a chunk of anthracite coal is not as heavy as a rock of the same size. It will/will not float in water. It is near black/very dark gray and not blue. It will burn with a blue flame.

*continued on page 20*

on September 11, 2021. The stairway had been found to be unsafe more than a year before that; it had been fenced off, but had neither been fixed nor removed because of conflicts between state agencies.

At about 5:50 p.m. on the same day, after darkness had fallen, a train inbound toward Boston's North Station, having left Haverhill, MA about 30 minutes earlier, hit a car at a grade crossing in Wilmington, killing its driver, a woman who was 68 years old. (Her age was not a factor in the accident.) The train had not stopped at the North Wilmington station, and was heading toward its next stop in Reading, traveling at 47 mph in a 60-mph zone. Riders said the train stopped suddenly, and they didn't feel the impact, and none were hurt. The train's lights went off, and the passengers were bused to continue inbound. A woman who had lived nearby for 42 years said there had never been an accident at that crossing. A reporter for WCVB was told by three different sources that the crossing gates were up when the collision occurred.

The accident was quickly investigated by the MBTA's transit police, the state police, and the Middlesex County's District Attorney's office. By the next night, the general manager of the MBTA said the investigation was focusing on "human error": a signal maintainer for Keolis Commuter Service, the contractor operating the Haverhill line and the other Commuter Rail routes, had performed regularly-scheduled testing and preventative maintenance shortly before the crash, and "our preliminary finding is that the safety system was not returned to its normal operating mode ... [resulting] in the crossing gates not coming down in a timely manner as the train approached Middlesex Avenue". By late afternoon on the 24th, the signal maintainer had been placed on administrative leave pending the final results of the investigation. The Federal Railroad Administration was also investigating the matter.

By January 25, the Boston Globe was able to report many more details, including some of those stated above. One expert on reconstructing railroad accidents told its reporter that the first thing he looked for is whether the maintenance person has left at least part of the system disabled, but that rust buildup on the rails might prevent the gates and flashers from detecting an oncoming train. The MBTA said that a full reenactment of the accident had eliminated that possibility. Another experienced

outside expert said that if the signal maintainer forgot to reengage the safety system, "That's a fault of the system". When the maintainer reports to the dispatcher or signal supervisor that he has finished the work, he should be asked, "Have you activated and demonstrated that the system is working?" The FRA will most likely be interested in learning whether that happened.

Wilmington's town manager says he is very much concerned about preventing any similar accidents, since there are several crossings in town and its residents are used to having the gates working.

Boston's WCVB on-line on the morning of February 23 reported on-line: "The signal maintainer has been removed from service, and will remain on administrative leave while the matter is being investigated. ... Keolis has already retrained all of its signal maintainers on the procedures that must be followed before, during and after the process of performing regular testing of the railroad crossing's protection system. In addition, MBTA and Keolis have instituted the following safety measures: 1) After testing of the railroad crossing's protection system is complete, Commuter Rail dispatchers must request and receive affirmation from the signal maintainer on duty that the protection system is enabled. 2) The signal maintainer on duty must remain on site until the next train passes through the railroad crossing to ensure the crossing's protection system is fully operational, and if necessary be prepared to manually control the protection system if it does not perform as expected. 3) New signage will be installed on the inside of each signal bungalow door to serve as a visual reminder to Keolis personnel to ensure that the crossing equipment has been fully and properly returned to service".

In recent months I have often seen the small crossing gates for a pedestrian crosswalk at the West Concord depot on the Fitchburg line come down when no train was approaching. Having gates on a road crossing not come down when a train is coming is a serious problem.

#### Valentine's Day delay in Queens

An Amtrak Acela from Boston to New York City and Washington stood still in New York City's Queens borough for almost seven hours on February 14, 2022. The train had left Boston on time at 5:05 a.m. and got stuck in the Hunters Point

neighborhood of Queens at 8:37 a.m. An Amtrak spokesperson said that the cause was a loss of power.

None of the 106 passengers and crew members aboard reported being injured. A new locomotive coupled to the train and restarted it around 3:30 p.m. to take it to Penn Station in Manhattan. Passengers going on to scheduled Acela station stops from Newark, NJ to Washington, DC were to take another train from there.

The following is a paraphrased and edited version of an article posted on-line late in the afternoon of that day by WCVB, using some material from the Associated Press and ABC's Channel 7 in New York City: Crew shortages attributable to the ongoing pandemic and bad weather have contributed to many continuing cancellations of Amtrak trains. Protest demonstrations by truckers concerning mask [and other] requirements have disrupted freight shipments at various points on the U.S./Canadian border and in Ottawa until a few days before February 25.

#### For the Record from page 18

Regardless of what it was named by the companies that produced/marketed it, it was still anthracite coal. It was processed for market by a lot of anthracite coal workers, some of whom were miners; some of whom were not.

#### Page 21:

**Top left:** A very colorful Pennsylvania Coal Co. "blue coal" porcelain sign. Oddly, it shows the coal burning with a bright yellow and red flame, instead of the characteristic blue; the "blue coal" lettering is tan.

**Top right:** The Anthracite Miner's Certificate of Competency for Andrew Caffrey, Miner. This certificate was earned, and not all "miners" were actually miners.

**Bottom:** The famous Hudson Coal cone cleaning process, as shown in an illustration in a D&H brochure. All images on this page provided by S. Robert Powell, Ph D.



No. 1336 Act of July 15, 1897

## ANTHRACITE MINERS' CERTIFICATE

Sub-Board No. 3.

### CERTIFICATE OF COMPETENCY.

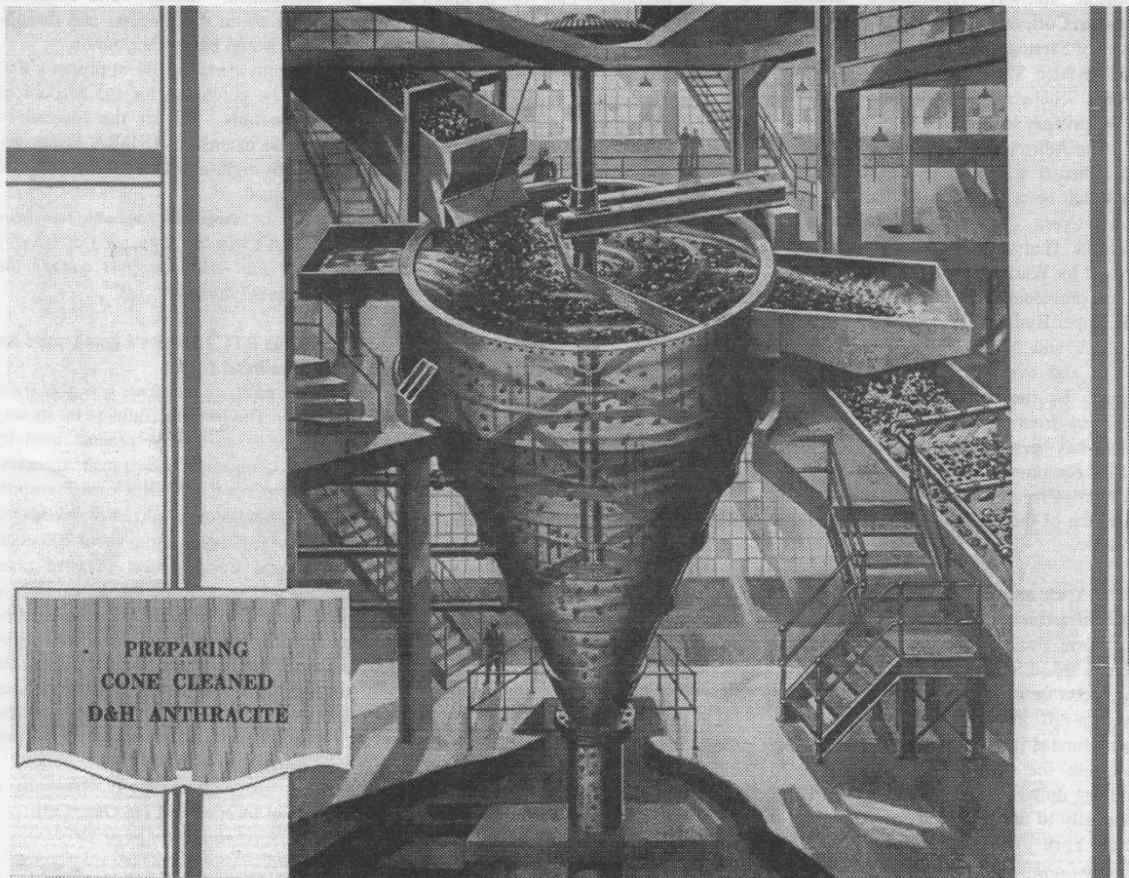
TO WHOM IT MAY CONCERN:

This is to Certify, That Andrew Caffrey of the FIRST ANTHRACITE COAL DISTRICT OF PENNSYLVANIA, having appeared before us this thirtieth day of July 1923, and having been duly examined by us, is hereby declared competent to be employed as a Miner in the Anthracite Coal Mines of this Commonwealth, agreeably to the Act of Assembly of July 15, 1897, entitled, "An Act to provide for the examination of Miners in the Anthracite region of this Commonwealth, and to prevent the employment of incompetent persons as Miners in Anthracite coal mines."

Weight 152 lbs Height 5 ft 4 in Color of Eyes Brown  
 Color of Hair Dark Identified by Boaz Roberts  
John J. Judge  
 SUB-COMMITTEE William P. Thomas  
Michael Proctor

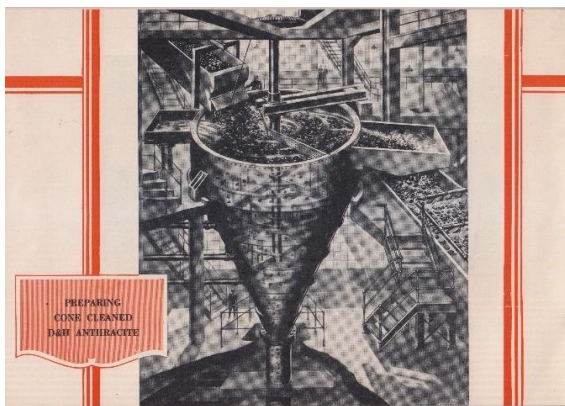
NOT ACQUAINTED WITH GAS

Issued at Carbondale, Pa. III 11 1923  
 Birthplace Canton Perry Age 43 yrs.



PREPARING  
CONE CLEANED  
D&H ANTHRACITE

Shown below are the full-color photos that were submitted to the BLHS by SRP with this article:



No. 1336- Act of July 15, 1897

**ANTHRACITE MINERS' CERTIFICATE**

Sub-Board No. 3.

**CERTIFICATE OF COMPETENCY.**

TO WHOM IT MAY CONCERN:

This is to Certify, That Andrew Gifford of the **FIRST ANTHRACITE COAL DISTRICT OF PENNSYLVANIA**, having appeared before us this eleventh day of July 1923, and having been duly examined by us, is hereby declared competent to be employed as a Miner in the Anthracite Coal Mines of this Commonwealth, agreeably to the Act of Assembly of July 15, 1897, entitled, "An Act to provide for the examination of Miners in the Anthracite region of this Commonwealth, and to prevent the employment of incompetent persons as Miners in Anthracite coal mines."

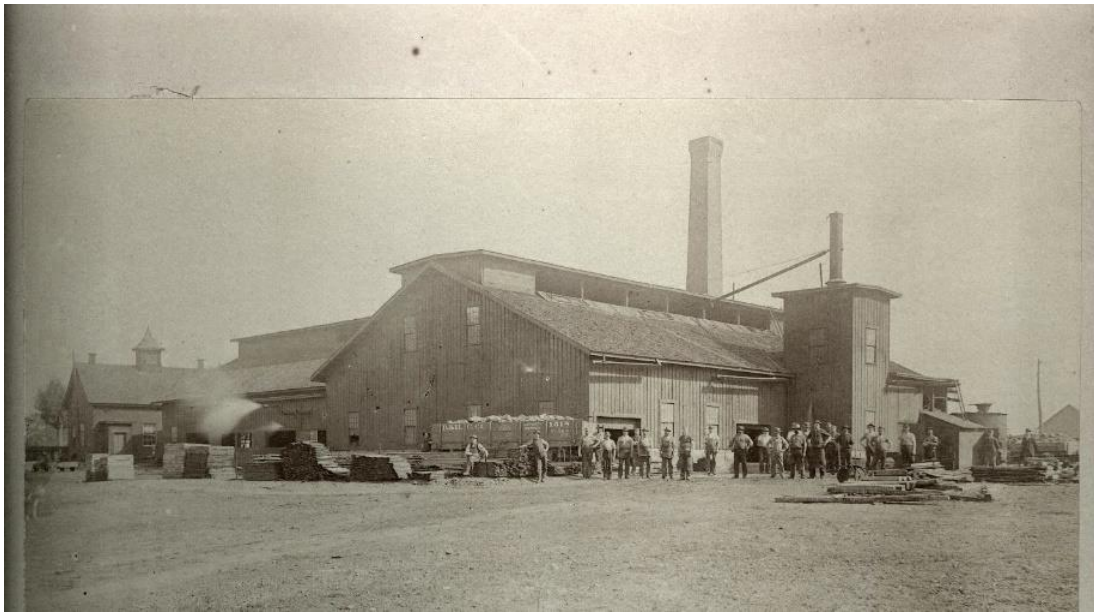
Weight 152 lbs Height 5 ft 4 in Color of Eyes Brown  
 Color of Hair Dark Identified by James J. Roberts

SUBCOMMITTEE Michael J. Thomas  
Michael J. Thomas

NOT ACQUAINTED WITH GAS

Issued at Carbondale, Pa. 1111 11 1923  
 Birthplace Scranton Pa. Age 29 yrs.

35. What are we looking at in this photo that was posted on Facebook on April 9, 2022, in the Delaware and Hudson Facebook group?:



**Post by SRP:** The loaded coal car at the front of this building is marked “D. & H. C. Co.” What is this building and where was it located? Pennsylvania? New York? The group of men shown here must have worked in this building.

**Ben Dibble:** I think that's lump coal to run the sawmill. That's what I think it is. (Lump or larger? Is there a 'larger' size?)

**John Forster:** Could be the Oneonta car shop?

**Benjamin Campbell:** My guess is foundry or forge shop. Railroad customer rather than railroad shop

SRP, April 9, 2022: Great photo. It's been on Facebook for over a week. No one knows for sure anything about this photo. There must be, out there, somewhere, hundreds of descendants of these 30 men.

36. D&H Safe (perhaps) offered for sale on April 15, 2022"; photo of safe posted on Facebook, April 15, 2022:

**Carolyn Burke Railroad Collectables:** Railroad safe in working condition with combination. Obvious wear due to age. Pickup only, Albany area, \$850



This is a nineteenth century safe. I don't think it belonged to the D&H Railroad. If the D&H owned the safe, would the D&H have felt the need to add its name to the exterior? I don't think so. And even if the D&H did own this safe, and decided to add the company name to the door, they would have added the company name spelled correctly (D&H C. Co.), i. e. there would be no definite article before the company name, an ampersand—and not "AND"—would be used in the company name, and "CO." would be written "Co."

I think this is a nineteenth century safe on the door of which someone (possibly an antique dealer from the Albany area) has painted "THE D. and H. CO." in order to enhance its market value.

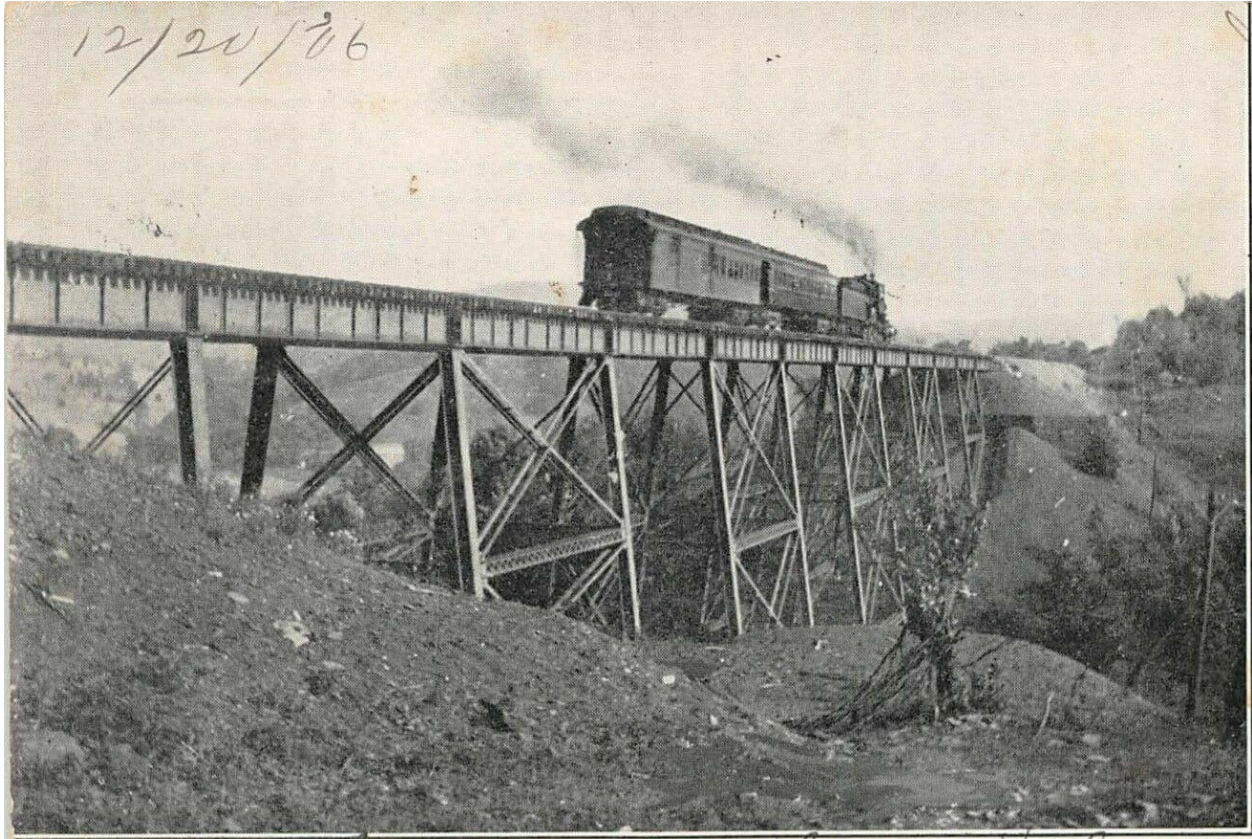
37. Newspaper article about a blind coal miner, Felix Slavin, and his assistant, John Dougherty; clipping given by Julie Esty to S. Robert Powell on April 22, 2022:

This miner and his assistant worked in Filer's Slope, operated by Filer and Livy,"a short distance from Scranton":

Sheffield and Rotherham Independent (Sheffield, South Yorkshire, England) · 7 Oct 1880, Thu · Page 8

**A BLIND MINER'S FATE.**—The mine known as Filer's Slope, operated by Filer and Livy, a short distance from Scranton, U.S., was recently the scene of a most painful accident, resulting in the instant death of a miner named Felix Slavin and his assistant, John Dougherty, in the chamber where they were at work. They were engaged taking down a "skip," or loose piece of coal, when a huge boulder, weighing about three tons, descended upon them from the roof, killing both instantly. A peculiar feature brought to light by this occurrence, and one that seems almost incredible, is the fact that Slavin, the miner, had been totally blind from boyhood. Scarcely any other calling requires the exercise of such keen sight, yet this unhappy man groped his way for years amid danger, and, trusting to the skill of his hands and the eyes of his assistant, plied his perilous vocation uncomplainingly. His early days were spent in the mines of England, where he learned the business and lost his eyes. He was quite expert in the use of the drill, and when his assistant once placed it accurately on the spot where the hole was to be drilled for the blast, Slavin, without deviating a hair's breadth, made the hole at the proper angle, and then superintended how it should be fired. He had been a miner 30 years without the use of his eyes. His companion, Dougherty, who shared his fate, was also his companion in misery, having been a cripple from childhood. He was physically weak and decrepit, and in reality was nothing more than the eyes for Slavin's skill and brawny arms.

38. Photo of Little Starrucca, posted on April 26, 2022 by John Cudo in D&H Facebook group (photo originally posted on *Remember Susquehanna Pa.* by Scott Fisher:



39. Four photos of Carbondale's D&H Caboose No. 35964 that were posted on Facebook on April 26, 2022 by [Eastern Pa. & South Jersey Railfans](http://nepa.railfan.net/rail/DhCarbCab.php), Michael Russ, <http://nepa.railfan.net/rail/DhCarbCab.php>:





**Silas Robert Powell:** It's been a long journey (which began in White River Junction, VT in 2010), but D&H Caboose No. 35964 is finally on display in downtown Carbondale (the home of the D&H), next to Carbondale City Hall. Roof repair and interior fine tuning scheduled to take place this spring/summer. S. Robert Powell, Carbondale Historical Society.

40. "Coe F. Young and Horace G. Young; Father and Son D&H Managers" by S. Robert Powell (*Bridge Line Historical Society Bulletin*, May 2022, pp. 16-18:

*For the Record*

**Coe F. Young and Horace G. Young: Father and Son D&H Managers  
by S. Robert Powell, Ph.D.**

Coe Finch Young and his son, Horace Gedney Young, both served the D&H as Vice Presidents in the late nineteenth century. Let's take a look at the career paths that they both followed to arrive at that high office in the D&H.

**Coe Finch Young**

Mr. Young was born near Mount Hope, Orange County, NY, on May 15, 1824, on the family farm. He was educated in the district schools of his locality, the Kingston, NY Academy, and the seminary at Amenia, in Dutchess County, NY. To create a life for himself, he left the Young farm as a teenager and walked across Sussex County to the Delaware River, and kept on through Pennsylvania, crossed into New York state at Port Jervis, where he struck the towpath of the D&H Canal.

He walked several miles on the towpath, when he was taken on board a canal boat bound for Honesdale. On board that boat was a Scottish family, recently landed in America, on their way to Carbondale, where the father of that family, a skilled mechanic, was signed up to work in the machine shops of the D&H Canal Company. One member of this Scottish family was about the same age as Coe. By the time the boat reached Honesdale, the two boys had become fast friends. The boy that Coe Young met that day on the towpath of the D&H Canal was Thomas Dickson, who was President of the D&H from May 13, 1869 to his death on July 31, 1884.

At Honesdale, Coe Young, age 13, got a job as a mule driver on the towpath of the D&H Canal. Energetic, forward-thinking, and highly motivated as he was, it was not long before he had a canal boat of his own. His organizational and managerial ability quickly attracted the attention of the officials of the company, and he was soon placed at the head of the freight department of the D&H Canal Company.

In the spring of 1852, Coe Young bought from Major Cornell a half interest in the Cornell, Bidwell & Co's Steam Freight Line on the D&H Canal between Honesdale and New York City. In 1857, he moved to Honesdale. In 1862, he be-

came the sole proprietor of the firm of Thomas Cornell & Co., which announced that it was prepared to receive freight for Carbondale and all points in the Lackawanna Valley between Carbondale and Wilkes-Barre.

On January 1, 1864, at the solicitation of George Talbot Olyphant, D&H President, and following the resignation of Russel Farnham Lord as Superintendent of the D&H Canal, Coe F. Young was named Superintendent of the D&H Canal. To make possible that appointment, he sold his freight line to the D&H. In 1865, the Rondout and Weehawken Department of the D&H was placed under his supervision. He served as D&H Canal Superintendent until January 1, 1869, when he was elected D&H Superintendent (canal and railroad), and served as such until January 1, 1873.

On October 24, 1884, Coe Young [a confidential and long-term friend of Thomas Dickson since their meeting on the D&H Canal when they were both boys] was elected Vice President and General Manager of the Delaware and Hudson Canal Company. He served as such until October 1, 1885, when he resigned. He died four years later, on March 22, 1889, and his son, Horace Gedney Young (born January 26, 1854, dec. 1933), was named D&H Vice President and General Manager. He served in that position until 1903.

**Horace Gedney Young**

Mr. Young was born in Honesdale on January 26, 1854. After due preparation for college, he entered Rensselaer Polytechnic Institute, and there he followed a thorough scientific course, and graduated with honors. By close and attentive reading and study, he acquired an education far in advance of what his school advantages afforded, and he became a highly educated man. In 1879, he entered the Delaware and Hudson service as assistant to the general manager. In that capacity, he brought to the task the scientific knowledge gained at RPI, and rapidly mastered the complicated details of railroad and canal operations.

In July, 1882 he was promoted to the position of Assistant General Manager of

the D&H, and took in special charge the Northern Railroad Department. This embraced the Albany and Susquehanna, the New York and Canada, the Rensselaer and Saratoga, the Duaneburg and Schenectady, the Utica, Clinton and Binghamton, and the Cherry Valley Branch, with upward of six hundred miles of track. In this position he proved himself a thoroughly practical railroad manager, of unusual energy, judgment and administrative ability.

On October 1, 1885 he was appointed D&H Vice President to fill the vacancy created by the resignation of his father on October 1, 1885, and served as such until 1903. During his management, the productive coal capacity of the company was increased from 800,000 tons annually to 4,500,000 tons. He married Mary A. Cornell, daughter of Peter Cornell, of Rondout, New York, on January 17, 1849. One of his sons, Horace G., by profession a civil engineer and also a graduate of Rensselaer Polytechnic Institute, ultimately

*continued on page 18*

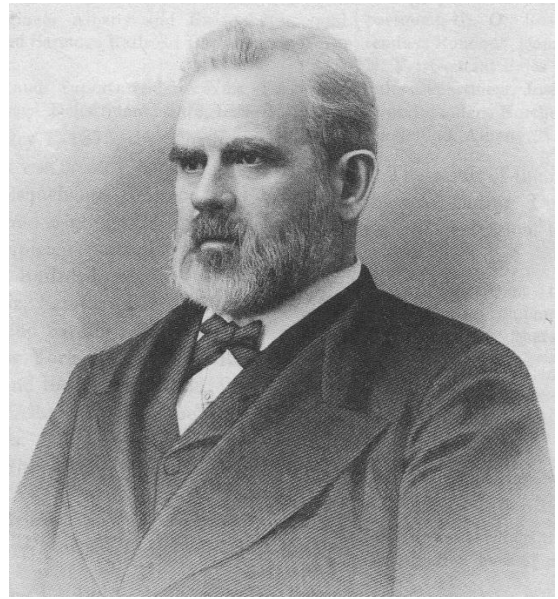
*Page 17:*

**Top left:** The official announcement from the office of Horace G. Young, 2nd Vice President of the D&H, in 1898, that the D&H Gravity Railroad would close on January 1, 1899. Provided by S. Robert Powell, PhD.

**Top right:** Coe F. Young was elected D&H Vice President and General Manager in 1884, and served as such for one year, when he resigned, to be replaced in that office by his son, Horace G. Young, who served as D&H Vice President and General Manager until 1903. Provided by S. Robert Powell, PhD.

**Bottom:** The D&H Office building in Carbondale, PA, by Thomas H. Johnson, from the collection of Horace G. Young. From one of 21 large format silver albumen prints by Johnson now in the collection of the Wayne County Historical Society at Honesdale. Provided by S. Robert Powell, PhD.

**Delaware & Hudson Canal Co.**  
**OFFICE OF SECOND VICE PRESIDENT.**  
**Albany, N. Y., October 28, 1898.**  
**PUBLIC NOTICE.**  
Beginning January 1st, 1899, all passenger, freight and coal trains will discontinue running on the Gravity railroad until further notice.  
**H. G. Young,**  
**Second Vice President.**



*by Paul Perreault*

On August 18, 1835, completion of the line was celebrated with a special train of

[A collection of 32 Thomas H. Johnson silver albumen prints of Delaware and Hudson subjects was offered for sale at Sotheby's on April 7, 1998. In the auction

[illegible]

41. D&H Caboose No. 35708 in Union Dale, PA, photo posted on Facebook, May 3, 2022:



**Bob Bahrs:** Originally a coal hopper car built in 1909. Rebuilt into a 2 coupler caboose in 1943 so a challenger could push it in on the tail of the train. Real interesting history. Frame is bent approx. 2 inches I believe I was told.

**Luke Olszar:** Caboose was equipped with a “telegraph” system , but maybe he meant radio?

**Craig Fosdick:** I don't believe they had radios until about 1965 or so. Certainly not likely in the steam era, BUT I could be wrong. I think as soon as cabooses and diesels had radios installed, D&H slathered the "Radio equipped" on them.

**Geoff Ross:** The caboose was built from a steel Frame Boxcar for pusher service over Ararat. Because they had steel frames they could be placed in front of the pushers. It lacks the diagonal braces on the ends found on older wooden cabooses when they were rebuilt in the 40's. I believe the first radios came in 1958. That is when the radio equipped markings started to appear on cab sides. This style of caboose has never been modeled.

42. Photo of wire rope fragment found in the Plane No. 14 area by Scott Bennett, May 5, 2022:

## Plane No. 14 wire rope

Inbox



**Old Bear**

1:13 PM

to me, Robert, Bill, Jane, Seth

Rusted & frayed showing construction. Located at side of loaded track.



**S. Robert Powell** <srp18407@gmail.com>

2:3  
5  
PM

to Old, Robert, Bill, Jane, Seth

May 5, 2022

Scott:

Very nice photo of a piece of wire rope found on your property. This piece of wire rope could possibly date from 1845, when Planes 13, 14, 15, 16, and 17 were installed. The D&H first bought wire rope from Roebling in 1844, and at that time began substituting wire rope for hemp rope on the planes on the Gravity Railroad. We have in our collection in Carbondale a couple pieces of wire rope that are several feet long.

Here are some notes on wire rope that I have gathered:

- the wire rope used on the D&H was 1 ¼ inches in diameter.
- J. A. Roebling began making wire rope in 1841.
- The D&H, says *Lowenthal*, first bought wire rope from Roebling in 1844. Several D&H histories incorrectly say that wire rope was first used on the D&H in 1858.
- Initially, Roebling's wire rope was made of iron; later, it was made of low-carbon steel (*Ruth*, p. 46)
- the Roebling factory in Trenton was opened in 1848
- the Hazard Wire Rope Company in Wilkes-Barre provided (in 1898) wire rope for the D&H

Thanks again for hosting a site visit yesterday to Plane No. 14.

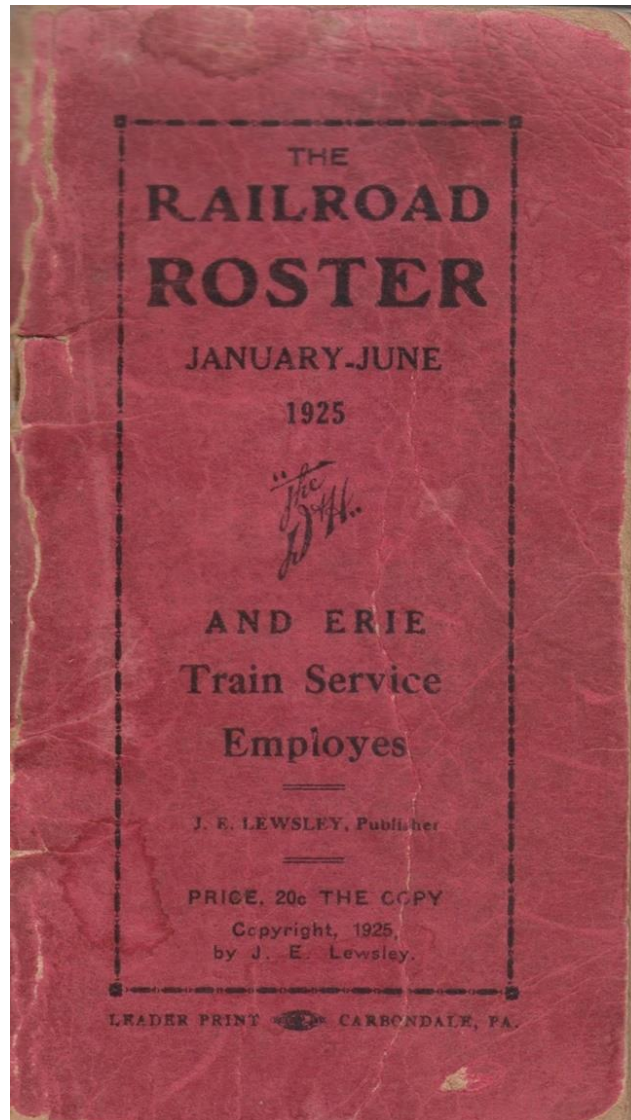
Best,

Robert

43 Pennsylvania Division employee rosters for 1925, 1926, and 1928:

**D&H Pennsylvania Division Employee Rosters, 1925, 1926, 1928:** At the Key, Lock, and Lantern convention in Carbondale on May 7, Joseph Senese acquired these three D&H Pennsylvania Division employee rosters and allowed SRP to borrow and scan them [returned to Joey Senese, 05-13-22 via Priority mail]. They are wonderful documents with complete lists of employees for each year.

Posted by SRP in the Delaware and Hudson Facebook group on May11, 2022:



1925: D&H trainmen, conductors, engineers, firemen, section foremen; Jefferson Division brakemen, engineers, firemen.

1926: trainmen, conductors, firemen, engineers, section foremen, and telegraphers. There were 92 telegraphers in 1926.

1928: trainmen, conductors.

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Facebook Comments (70 comments in 48 hours):

**Heidi Galster**: Can you look up a name? I would love to know what my grandfather actually did. Being very young, I always thought he drove the train and pulled the whistle. I'm pretty sure he started working there a year or two after WW1. Frank H Bachteler.

**Silas Robert Powell**: The three rosters can now be read at Internet [Archive.org](https://www.archive.org). Search for them by title (Delaware and Hudson Railroad Pennsylvania Division Employee Roster. . . 1925 or 1926 or 1928) or under my name: S. Robert Powell

**ARCHIVE.ORG**: Internet Archive: Digital Library of Free & Borrowable Books, Movies, Music & Wayback Machine [Internet Archive: Digital Library of Free & Borrowable Books, Movies, Music & Wayback Machine](https://www.archive.org) [This Internet Archive note appeared automatically when I mentioned Internet Archive in the preceding entry. Many Facebook readers went to Internet Archive and found and then searched through these three D&H rosters, looking for relatives/friends. This pleases me very much.

-----

**Norman J. Barrett**: My Great Uncle, Cy Grosvenor along with his brothers, Cecil and Earl should show up in these.

**Silas Robert Powell**: Yes, I find all three Grosvenors in these rosters. Cyrus B. Grosvenor is listed as a trainmen in 1925 and 1926; Cecil C. Grosvenor is listed as an engineer in 1925 and as a trainman in 1928; E. J. Grosvenor is listed as a fireman in 1925. I knew Cy Grosvenor. I learned a great deal about the D&H Gravity Railroad and about the D&H steam lines from Cy Grosvenor

**Norman J. Barrett**: Wow, what a nice connection. I'm sure you know the Cy and his wife lived a 4 Dickson Hill which I was told was and original gravity plane.

**Silas Robert Powell**: Yes, Dickson Hill (now called "Dixon Avenue" by many) was incorporated into Plane No. 1 in the 1859 configuration of the line. It was named after Thomas Dickson, president of the D&H from 1869 to 1884. I can still hear Cy Grosvenor saying: "It's DICKSON, not DIXON!"

**Norman J. Barrett**: We will have to talk again soon and I will see what I may have to share with you.

**Ben Dibble**: Huh, T. E. Dibble is listed as a telegrapher in 1926. Never heard of him. I'll check [Ancestry.com](http://Ancestry.com)! That's Tyler Dibble, whom my brother is named for. Why would he only be listed for 1 year. Hmm. And my Grandfather, Vincent Dibble, who worked section gang in E. Windsor isn't listed in any. Born 1891, which would have made him 35. I know for a fact he worked his entire career for the D&H. Retiring from the RR after 60-mumble years. I doubt these are truly complete listings. [Ben Dibble didn't read carefully my original post. If he did, he would not have said what he said in his post given here.]

**Silas Robert Powell**: These rosters, which were produced by the Office of the Superintendent of the Pennsylvania Division, cover only three years: 1925, 1926, and 1928, and they only cover train service personnel (engineers, firemen, trainmen, etc.; in 1928 telegraphers were included

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**Marlene Tartaglia**: This is a great find! Thank you for posting. I cannot find my grandfather though. He was a fire cleaner for D&H Carbondale Pa from 1919 to 1948. Peter Radowitch. Am I missing it?

**Silas Robert Powell**: These rosters list only railroad employees. If your grandfather worked in the D&H Roundhouse or somewhere else in the D&H Yard, he would not be listed in these rosters.

**Marlene Tartaglia**: Ah ok. I thought he would be listed as an employee.

**Silas Robert Powell**: These rosters contain only lists of the D&H employees who worked in train service, and should not be regarded as lists of all D&H employees.

**Marlene Tartaglia**: Robert, my brother and I visited your museum a few years ago when visiting Carbondale for a nostalgic family trip and met you. You graciously showed us around the well kept artifacts and answered our questions. Thank you! Marlene Tartaglia (Peter Radowitch was my grandfather) He worked from 1919 to 1948 when he passed. I was hoping to find evidence of his employment as a fireman for the D&H

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**Joseph Senese**: This is fantastic. I'm so glad I was able to help you with these.

**Silas Robert Powell**: Those three rosters are very important components of the history of the Pennsylvania Division of the D&H. Thanks again for showing them to me and for allowing me to borrow and scan them.

**Joseph Senese**: Your welcome buddy. I just replied to your email

[Greg Flynn \[to Joey Senese\]](#): Were you on the excursion Friday? I rode it and if you were there, sorry I missed you!!

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[Jeannette Vannan](#): Thank you for all of your dedication to this history! I found my Great Great Grandfather on page 56. Conductor Thomas Vannan.

44. Photo of D&H No. 5017 in Alan G. Dustin collection at the Carbondale Historical Society:



Posted on Facebook on May 14 in the Delaware and Hudson group: “During the calendar year 2009, A. G. Dustin donated to the Carbondale Historical Society and Museum in Carbondale, PA, a large collection of Delaware and Hudson books, periodicals, timetables, annual reports, schedules, publications, photographs, and railroad memorabilia. Among the photographs in this collection is the photo shown here of No. 5017. Does anyone recognize this location?”

Seventy-one responses/comments/“likes” in 2 days. We now know that the train shown here is “D&H No. 5017, a southbound, at the West Richmondville crossing (Dorloo Road), most likely before the PASNY track was installed.”

**Rob Brogle:** God Bless **Alan Dustin**. He passed away a few months ago at 92-93 years old. He was a great guy.

45. Photo of D&H Challenger No. 1514 in Alan G. Dustin collection posted in D&H Railroad Facebook group on May 16, 2022, with this message: “Here's another great photo that's in a folder that we have in Carbondale that is labeled "A. G. Dustin". On the back of the photo someone has written "Nineveh ?" Anybody recognize the site?”



Fifty 50 responses over night. We now know that in this photo we see “D&H Challenger No. 1514 at Nineveh, NY. This train is a northbound, on the A&S main, at Oak Hill Road at the Center Hotel, just south of SW Cabin.

On May 17, 2022, SRP added the following material to his own post on this photo:

**Silas Robert Powell:** In digging deeper and deeper in D&H archives, I learned today that the photo given at the head of this item of a northbound on the A&S main at Nineveh was taken in 1948 by Edward Baumgardner, 26 West End Avenue, Oneonta, NY. At Nineveh Junction, as we all know, the L&S coming North from Jefferson Junction, merged with the A&S coming East from Binghamton for Albany. Up to November 1874, A&S crews ran into Carbondale. Beginning in November 1874, the Nineveh Branch was included in the Pennsylvania Division.

When I posted the photo given above (and the photo shown in No. 44), I did not know that Alan G. Dustin had died recently. Here is his obituary that was published in the June 2022 issue of the *Bridge Line Historical Society Bulletin*, p. 28:

*Alan G. Dustin*

Alan G. Dustin, 93, the final president of the Boston & Maine Corporation during its independence, passed away on February 27, 2022 of Parkinson's disease. Born in Plattsburgh, NY, Dustin began his railroad career at 16 years of age as a baggage clerk in Ticonderoga, NY, with the Delaware & Hudson Railroad, and later became a telegrapher. In 1970, he joined Maine's Bangor & Aroostook Railroad as Vice President, and later became CEO. In 1974, Dustin became president of the Boston & Maine Railroad. From 1974 until the railroad's sale to Guilford Transportation Industries in 1983, Mr. Dustin led the B&M's charge out of the depths of the 1970 bankruptcy, dramatically repairing infrastructure, improving service, and repairing the B&M's reputation. Dustin had become a renowned figure to both B&M fans and railroad enthusiasts in general. He was the very picture of a railroad executive whose kindness, love for his industry, and devotion helped guide the railroad through a difficult period. In 1984, Dustin became New Jersey Transit's vice president, serving until his retirement four years later.

(Posted on Facebook on May 20)

46. “Cannon” (a 16mm. coastal defense gun) in the Carbondale D&H yard, original print of this photo is in the collection of the Carbondale Historical Society:



Material on this photo is presented in:

1. SRP's Volume XIV: "Carbondale Stations, Freight Houses, and the Carbondale Yard", p. 84
2. SRP's *Addendum I* (December 31, 2018), p. 377
3. *Bridge Line Historical Society Bulletin*, May 2022, p. 5
4. March 2015 issue of the *Bridge Line Historical Society Bulletin* on page 25
5. Bill Mischler's article in the December 2014 *BLHS Bulletin*

This photo of a 16 mm. coastal defense gun (not to be called a *cannon*) was taken in the Carbondale yard. The gun was passing through the Carbondale yard en route to the Pennsylvania Railroad interchange at Buttonwood, and then to Europe, to be used in the "Great War". About these guns, we read the following in Stan Trzoniec's *Letter to the Editor* on page 12 of the June 2022 issue of the *BLHS Bulletin*: "Being mobile on the rails meant they could be moved around to various locations for firing on distant targets. Some of these weapons were even made by the Baldwin Locomotive Works to help the war effort. / Thought you would like to know; they were not made for battleships!"

47. More on Alan G. Dustin (see Nos. 44 and 45, above)

Posted by SRP in Facebook Delaware and Hudson group on May 20, 2022:

"When I posted here recently two great D&H photos that were in Alan G. Dustin's collection (one taken on Richmondville Hill, and one at Nineveh), I had no idea that he had died on February 27,

2022. Let us, therefore, regard those two photos, presented here, as a memorial tribute to Alan G. Dustin. (I learned of his death from the obituary that is given here, which was published in the June 2022 issue of *Bridge Line Historical Society Bulletin*, which I received in the mail today)."

*Alan G. Dustin*

Alan G. Dustin, 93, the final president of the Boston & Maine Corporation during its independence, passed away on February 27, 2022 of Parkinson's disease. Born in Plattsburgh, NY, Dustin began his railroad career at 16 years of age as a baggage clerk in Ticonderoga, NY, with the Delaware & Hudson Railroad, and later became a telegrapher. In 1970, he joined Maine's Bangor & Aroostook Railroad as Vice President, and later became CEO. In 1974, Dustin became president of the Boston & Maine Railroad. From 1974 until the railroad's sale to Guilford Transportation Industries in 1983, Mr. Dustin led the B&M's charge out of the depths of the 1970 bankruptcy, dramatically repairing infrastructure, improving service, and repairing the B&M's reputation. Dustin had become a renowned figure to both B&M fans and railroad enthusiasts in general. He was the very picture of a railroad executive whose kindness, love for his industry, and devotion helped guide the railroad through a difficult period. In 1984, Dustin became New Jersey Transit's vice president, serving until his retirement four years later.

In 24 hours, more than 50 "likes" and these comments:

**Norman J. Barrett:** My he Rest In Peace. He was a true railroader!

**Brian Burns :** (Norman J. Barrett) Exactly! He took the broken B&M and turned it into a real railroad. Just think what he could have done with a really profitable company. It doesn't take talent to do what Hunter did, but does to do what Dustin did.

**Wes Coates:** I worked for him at NJ Transit. He came to a meeting one time with a train order hoop and talked about working at Rouses Point. A polite gentleman!

**Scott Whitney:** I met Dustin once at one of the B&M RR Historical Society meetings. I also had one round of personal communication as I was seeking to get employment with the railroad. At that time, White River Junction was still a busy place but soon that was not to be. Though I

interviewed for a freight clerk position, I did not get hired and before long there were no such jobs in WRJ. Fast forward a couple years and I got a job with the Green Mountain RR. Eventually, Green Mountain, under Vermont Rail System, was to get involved in taking over White River and northward operations when Guilford sold the track to the State. So, I came full circle and was operating trains up there and also doing the freight agency work (retiring after 37 years)! However, I'll never forget Dustin's courtesy to me.

**Gordon Smith:** He was one of the greatest railroaders of our time. May he Rest In Peace!!

48. "Rollin Manville and C. Rollin Manville, Father and Son, Superintendents of the Pennsylvania Division of the D&H" (*BLHS Bulletin*, June 2022, pp. 16-18):

### **Rollin Manville and C. Rollin Manville: Father and Son, Superintendents of the Pennsylvania Division of the D&H**

By S. Robert Powel, Ph.D.

Rollin A. Manville and his son, Charles Rollin Manville, both served as Superintendents of the Pennsylvania Division of the D&H. Let's take a look at the career paths that they both followed to arrive at that high office in the D&H.

**Rollin A. Manville** was born at Whitehall, Washington County, NY, November 6, 1824. He entered the railroad service as rodman with the surveying party in charge of the construction of the Saratoga & Washington Railroad in July, 1847, and continued in the service of the same road until October, 1849, when he was appointed Division Engineer of the New York & Harlem Railroad.

His first work in Pennsylvania began when he was employed to survey and make plans for a railroad from Wilkes-Barre to the Delaware River at Water Gap. The survey was made during the summer of 1853, but the project was abandoned after the plans had been prepared. In September of the same year Rollin Manville returned to New York and was appointed constructing engineer of the Flushing and Hunter's Point Railroad, which was completed in June, 1855.

In January, 1856, Rollin Manville entered the service of the Delaware & Hudson Canal Company as Assistant Superintendent, taking entire charge of the D&H Gravity Railroad from Waymart to Honesdale, the coal pockets, and the canal docks, and the entire plant pertaining to the trans-shipment of coal by boat.

During that year the system of transferring coal from rail cars to boats was redesigned by Manville, whose design not only simplified the process but also lessened the cost of trans-shipment of coal. The improvements made under the direction of Rollin Manville at Honesdale were in line with the changes contemplated for the entire Gravity Railroad system, and when the work of constructing the 1859 configuration of the Gravity Railroad was begun in April, 1857, Rollin Manville was placed in charge as constructing engineer.

In 1864, Rollin Manville was named Superintendent of the Delaware and Hudson Canal Company (his predecessor as such was Charles Pemberton Wurts), and in that year he became a resident of Carbondale. In 1868, under the direction of O. D. Shepherd and Rollin Manville, the fourth configuration of the D&H Gravity Railroad was made a reality.

During his administration as D&H Railroad Superintendent, the Valley Road from Carbondale to Scranton was constructed, the Jefferson Branch of the Erie from Carbondale to Lanesboro constructed, the Albany and Susquehanna Railroad and the Rensselaer & Saratoga Railroad acquired, the Lanesboro and Susquehanna Railroad built, and the extension of the Valley Road to Wilkes-Barre completed.

Following thirty-five years of outstanding service to the D&H, Rollin Manville died, on June 24, 1891. At the time of his death, it was noted in the public press: "With all the time and labor devoted to the interest of the company, which he so faithfully and ably served, Mr. Manville found time to look after the interest of the army of men, whose service in the various departments of the railroad he considered quite as essential to the success of the corporation as the responsible places held by the managers. In all his relations with the men, he was uniformly courteous and his decisions were fair. Having grown up with the great corporation, he was not only familiar with the duties of the humblest employee, but he retained for the working men the kind feeling engendered by the belief that men, in whatever station of life, are of one family and entitled to all the privileges that free and equal birth secure. Few men enjoyed the confidence of so many wage earners as did he. With all the responsibilities resting upon him, he was never known to pass one of his men without a kind greeting. His great heart was readily touched by the appeal of the needy and his hand was never withheld when the claim of the helpless was presented to him."

Rollin Manville was a strong advocate of home protection and looked carefully to the improvements of his home town and took great interest in the building up of Carbondale. When the movement came to erect a hospital for the care of the injured miners and railroad men was projected, he was among the first to give it his hearty support and, as the President of the Board of Trustees of the Carbondale Emergency Hospital, he did much to set the organization right before the people of the district.

In the winter of 1874, a number of young men in Carbondale met for the purpose of establishing a library, to be known as the Young Men's Library Association. At that time Rollin Manville offered

the use of large room over the D. & H. C. Co.'s office on North Main Street in Carbondale as a site for the library. That library is still in existence (now named the Carbondale Public Library), and it is the oldest public library in Lackawanna County.

The account of the funeral of Rollin Manville is an interesting sociological and historical document in that the names of the major railroad and mining personnel who attended this funeral are given. That account is, in effect, a *Who's Who* in railroading and mining in Carbondale and environs in 1891. Here are the names of just a few of the many persons of distinction who attended his funeral:

Horace G. Young, of Albany, General Manager of the Delaware & Hudson Canal Company; John Jermyn, of Scranton; W. F. Hallstead, of Scranton, General Manager of the Delaware, Lackawanna and Western Railroad; John B. Smith, of Dunmore, President of the Erie & Wyoming Valley Railroad; R. Livingston Crosby, private secretary to R. M. Olyphant, President of the D. & H. C. Co.; Hon. H. M. Seeley, of Honesdale, President Judge of Wayne County; C. D. Hammond, of Albany, Superintendent Northern Division, D. & H. C. Co.; M. C. Carr, Superintendent of Scranton Division, New York, Ontario & Western Railway; A. H. Vandling, of Scranton, Supt. D. & H. Mine Department; J. M. Chittenden, of Scranton, Asst. Supt. D. & H. Mine Department; W. R. Storrs, Gen'l Supt. Delaware Lackawanna & Western Railroad; William Muir, of Honesdale, Supt. D. & H. Canal; Sidney Broadbent, of Scranton, Supt. Dickson Manufacturing Company.

Following the funeral service for Rollin Manville in the Trinity Episcopal Church in Carbondale, the body of Rollin Manville remained overnight in the church. At 6:30 A.M., on the following morning, it was taken to the Seventh Avenue D&H station for removal, via D&H Vice President H. G. Young's private car, to Troy, for cremation.

**Charles Rollin Manville:** Following the death of Rollin Manville, his son, Charles Rollin Manville, was named, on July 15, 1891, Superintendent of the Pennsylvania Division of the Delaware and Hudson Railroad. Rollin Manville's other son, Willis A, was named Soliciting and Freight Agent for the D&H, with an office Wilkes-Barre.

C. R. Manville was born in Honesdale, Pa., January 13, 1858, and graduated as a civil engineer from Rensselaer Polytechnic Institute of Troy, NY, June 16, 1880, and in the same year entered the service of the Delaware & Hudson Railroad as assistant superintendent of the Pennsylvania Division, filling that position until March, 1883.

From that time until November, 1885, he served as engineer of the same road, and afterward, until July, 1891, was Assistant Superintendent. On the death of his father, in 1891, he was promoted to the position of D&H Pennsylvania Division Railroad Superintendent (July 15, 1891) and served the D&H in that capacity for 12 years, when he resigned (December 1, 1903) and was succeeded by H. G. Gilpin (Superintendent of the New York, Susquehanna, and Western Railroad).

In a newspaper account (dated November 28, 1903, Gritman scrapbook) about the resignation of C. Rollin Manville as Superintendent of the Pennsylvania Division, there is a very interesting description of how the Delaware and Hudson transportation system would be reorganized, beginning December 1, 1903. Here is that account:

“Under the direction of Vice President Culver, the transportation system of the Delaware and Hudson Company will be reorganized, beginning Dec. 1 [emphasis added]. At the present time there are three departments, viz., the transportation, mechanical and maintenance of ways. These will all be under one head and the divisions known as the northern railroad department, the Susquehanna, Rensselaer and Saratoga, and Champlain divisions, and the Pennsylvania division all come under one head and the whole system of transportation will be directed by an official know as general agent. / This system will be divided into four divisions with the following superintendents: H. G. Gilpin, superintendent of the Pennsylvania division; P. H. Conner, superintendent of the Susquehanna division, with office at Oneonta; A. T. Benjamin, superintendent of the Troy and Saratoga division, with office in Albany, and D. F. Waite, superintendent of the Champlain division. / A. J. Stone will be general superintendent in charge of the transportation, mechanical and maintenance of ways department. / C. D. Hammond will be general agent of the transportation department. He will be located at Albany, and will have charge of the four transportation divisions. A new department of coal and mining will be formed and will be operated independent of the other divisions.”

C. R. Manville’s was a very patriotic man and in 1898 he presented 100 American flags to the Delaware and Hudson engineers. During his time as Superintendent of the Pennsylvania Division, the D&H Gravity Railroad closed and was converted to a standard-gauge steam locomotive railroad, and much of C. R. Manville’s time as Superintendent was devoted to explaining to the general public, with the assistance of Nick L. Moon, his private secretary, what the consequences of that closing would be, and to conducting the routine business of the railroad.

In addition to serving as Superintendent of the Pennsylvania Division, he also served as president of the Fall Brook & Newton Water Company, the Carbondale Gas Company, the Lackawanna Valley Water Supply Company, and the Carbondale Gas Company. The Manville residence in Carbondale was at 54-56 North Main Street.

Rollin A. Manville and his son, Charles Rollin Manville, both served the D&H as Superintendents of the Pennsylvania Division, the father (Rollin) for 25 years (from 1866 to 1891); the son (C. Rollin) for 12 years (from 1891 to 1903). The father embraced the position and his contributions were many; the son inherited the position from his father, and fulfilled his obligations as Superintendent of the Pennsylvania Division for 12 years. Remarkably, no photographs of Rollin Manville or C. Rollin Manville are known to exist.

\* \* \* \* \*

[There are two photographs in this article, and they are shown below.]

*Manville Falls*: Two photographs of Manville Falls, at Shepherd's Crook, on the D&H Gravity Railroad. These two photos are components of the celebrated series, produced in 1879, of stereoscopic views by Ludolph Hensel, titled "A Ride over the Del. & Hud Gravity Road into the Coal Regions". In that Hensel series, these two photos were numbered by Hensel as 1157 and 1158:



1157: *Manville Falls on Panther's Creek, seen from above*

D&H tour guides  
and/or friends of  
Roebeling's who  
accompanied him  
on this outing to  
photograph the  
D&H



1158: *Manville Falls on Panther's Creek, seen from below* (Note the two men standing by the Falls, both of whom accompanied Hensel on this photographic outing to photograph Manville Falls).

*For the Record*  
**Rollin Manville and C. Rollin Manville, Father and Son**  
**Superintendents of the Pennsylvania Division of the D&H**  
 by **S. Robert Powell, Ph.D.**

Rollin A. Manville and his son, Charles Rollin Manville, both served as Superintendents of the Pennsylvania Division of the D&H. Let's take a look at the career paths that they both followed to arrive at that high office in the D&H.

**Rollin A. Manville**

The elder Manville was born at Whitehall, Washington County, NY, on November 6, 1824. He entered the railroad service as a rodman with the surveying party in charge of the construction of the Saratoga & Washington Railroad in July, 1847, and continued in the service of the same road until October, 1849, when he was appointed Division Engineer of the New York & Harlem Railroad.

His first work in Pennsylvania began when he was employed to survey and make plans for a railroad from Wilkes-Barre to the Delaware River at Water Gap. The survey was made during the summer of 1853, but the project was abandoned after the plans had been prepared. In September of the same year, Rollin Manville returned to New York and was appointed constructing engineer of the Flushing and Hunter's Point Railroad, which was completed in June, 1855.

In January, 1856, Rollin Manville entered the service of the Delaware & Hudson Canal Company as Assistant Superintendent, taking entire charge of the D&H Gravity Railroad from Waymart to Honesdale, the coal pockets, and the canal docks, and the entire plant pertaining to the trans-shipment of coal by boat.

During that year, the system of transferring coal from rail cars to boats was redesigned by Manville, whose design not only simplified the process but also lessened the cost of trans-shipment of coal. The improvements made under the direction of Rollin Manville at Honesdale were in line with the changes contemplated for the entire Gravity Railroad system, and when the work of constructing the 1859 configuration of the Gravity Railroad was begun in April, 1857, Rollin Manville was placed in charge as constructing engineer.

In 1864, Rollin Manville was named Superintendent of the Delaware and Hudson Canal Company (his predecessor as such was Charles Pemberton Wurts), and in that year he became a resident of Carbondale. In 1868, under the direction of O. D. Shepherd and Rollin Manville, the fourth configuration of the D&H Gravity Railroad was made a reality.

During his administration as D&H Railroad Superintendent, the Valley Road from Carbondale to Scranton was constructed, the Jefferson Branch of the Erie from Carbondale to Lanesboro constructed, the Albany and Susquehanna Railroad and the Rensselaer & Saratoga Railroad acquired, the Lanesboro and Susquehanna Railroad built, and the extension of the Valley Road to Wilkes-Barre completed.

Following thirty-five years of outstanding service to the D&H, Rollin Manville died on June 24, 1891. At the time of his death, it was noted in the public press: "With all the time and labor devoted to the interest of the company, which he so faithfully and ably served, Mr. Manville found time to look after the interest of the army of men, whose service in the various departments of the railroad he considered quite as essential to the success of the corporation as the responsible places held by the managers. In all his relations with the men, he was uniformly courteous and his decisions were fair. Having grown up with the great corporation, he was not only familiar with the duties of the humblest employee, but he retained for the working men the kind feeling engendered by the belief that men, in whatever station of life, are of one family and entitled to all the privileges that free and equal birth secure.

"Few men enjoyed the confidence of so many wage earners as did he. With all the responsibilities resting upon him, he was never known to pass one of his men without a kind greeting. His great heart was readily touched by the appeal of the needy, and his hand was never withheld when the claim of the helpless was presented to him".

Rollin Manville was a strong advocate

of home protection, and looked carefully to the improvements of his home town and took great interest in the building up of Carbondale. When the movement came to erect a hospital for the care of the injured miners and railroad men was projected, he was among the first to give it his hearty support and, as the President of the Board of Trustees of the Carbondale Emergency Hospital, he did much to set the organization right before the people of the district.

In the winter of 1874, a number of young men in Carbondale met for the purpose of establishing a library, to be known as the Young Men's Library Association. At that time, Rollin Manville offered the use of a large room over the D. & H. C. Co.'s office on North Main Street in Carbondale as a site for the library. That library is still in existence (now named the Carbondale Public Library), and is the oldest public library in Lackawanna County.

The account of the funeral of Rollin Manville is an interesting sociological and historical document, in that the names of the major railroad and mining personnel who attended this funeral are given. That account is, in effect, a *Who's Who* in railroading and mining in Carbondale and environs in 1891. Here are the names of just a few of the many persons of distinction who attended his funeral:

Horace G. Young, of Albany, General Manager of the Delaware & Hudson Canal Company; John Jermyn, of Scranton; W. F. Hallstead, of Scranton, General Manager of the Delaware, Lackawanna and Western Railroad; John B. Smith, of Dunmore,

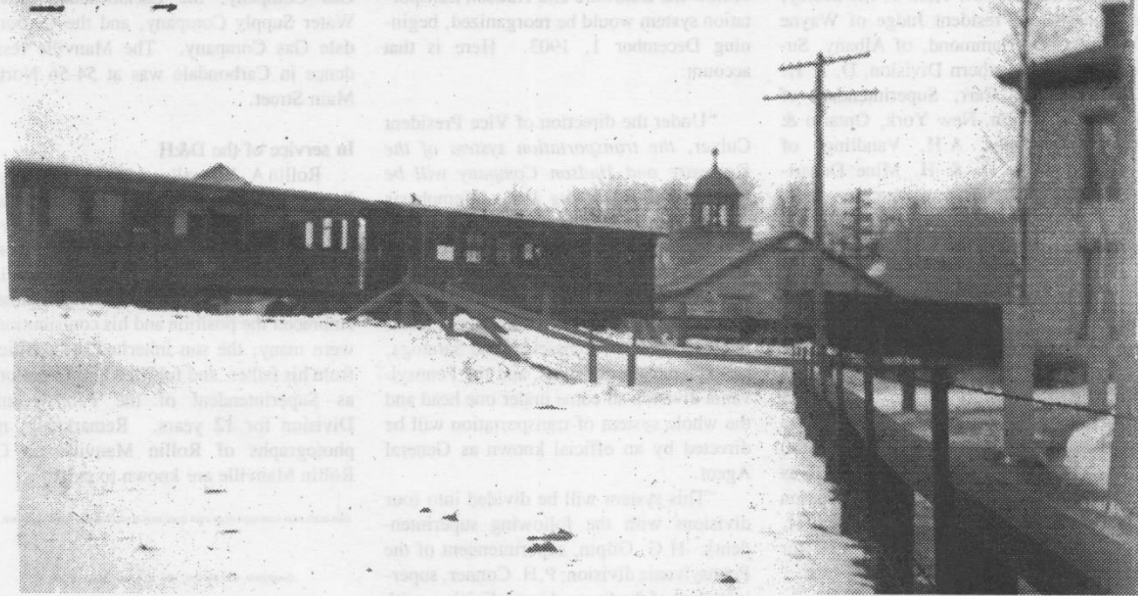
*continued on page 18*

*Page 17:*

**Top:** The last D&H Gravity train to leave Carbondale, PA, in 1899. BLHS Archives.

**Bottom left and right:** Manville Falls on Panther's Creek, near Carbondale, PA, as seen from below (left image) and above (right image). From stereoscopic images supplied by S. Robert Powell, Ph.D.

# Closing of The Old Gravity To Honesdale Last Train Leaving 3 P.M. From Carbondale. Ed. HOBBARD Carid.



President of the Erie & Wyoming Valley Railroad; R. Livingston Crosby, private secretary to R.M. Olyphant, President of the D. & H. C. Co.; Hon. H.M. Seeley, of Honesdale, President Judge of Wayne County; C.D. Hammond, of Albany, Superintendent, Northern Division, D. & H. C. Co.; M.C. Carr, Superintendent of Scranton Division, New York, Ontario & Western Railway; A.H. Vandling, of Scranton, Supt. D. & H. Mine Department; J.M. Chittenden, of Scranton, Asst. Supt. D. & H. Mine Department; W.R. Storrs, Gen'l Supt. Delaware Lackawanna & Western Railroad; William Muir, of Honesdale, Supt. D. & H. Canal; Sidney Broadbent, of Scranton, Supt. Dickson Manufacturing Company.

Following the funeral service for Rollin Manville in the Trinity Episcopal Church in Carbondale, the body of Rollin Manville remained overnight in the church. At 6:30 A.M. on the following morning, it was taken to the Seventh Avenue D&H station for removal, via D&H Vice President H. G. Young's private car, to Troy, NY for cremation.

#### Charles Rollin Manville

Following the death of Rollin Manville, his son, Charles Rollin Manville, was named, on July 15, 1891, Superintendent of the Pennsylvania Division of the Delaware and Hudson Railroad. Rollin Manville's other son, Willis A., was named Soliciting and Freight Agent for the D&H, with an office in Wilkes-Barre.

C. R. Manville was born in Honesdale, Pa., January 13, 1858, and graduated as a civil engineer from Rensselaer Polytechnic Institute of Troy, NY, June 16, 1880, and in the same year entered the service of the Delaware & Hudson Railroad as assistant superintendent of the Pennsylvania Division, filling that position until March, 1883.

From that time until November, 1885, he served as engineer of the same road, and afterward, until July, 1891, was Assistant Superintendent. On the death of his father, in 1891, he was promoted to the position of D&H Pennsylvania Division Railroad Superintendent (July 15, 1891) and served the D&H in that capacity for 12 years, when he resigned (December 1, 1903) and was succeeded by H. G. Gilpin (Superintendent of the New York, Susquehanna, and Western Railroad).

In a newspaper account (dated November 28, 1903, Gritman scrapbook) about the resignation of C. Rollin Manville as Superintendent of the Pennsylvania Division, there is a very interesting description of how the Delaware and Hudson transportation system would be reorganized, beginning December 1, 1903. Here is that account:

"Under the direction of Vice President Culver, the transportation system of the Delaware and Hudson Company will be reorganized, beginning Dec. 1 [emphasis added]. At the present time there are three departments, viz., the transportation, mechanical and maintenance of ways. These will all be under one head and the divisions known as the northern railroad department, the Susquehanna, Rensselaer and Saratoga, and Champlain divisions, and the Pennsylvania division all come under one head and the whole system of transportation will be directed by an official known as General Agent.

"This system will be divided into four divisions with the following superintendents: H.G. Gilpin, superintendent of the Pennsylvania division; P.H. Conner, superintendent of the Susquehanna division, with office at Oneonta; A.T. Benjamin, superintendent of the Troy and Saratoga division, with office in Albany, and D.F. Waite, superintendent of the Champlain division.

"A. J. Stone will be general superintendent in charge of the transportation, mechanical and maintenance of ways department.

"C. D. Hammond will be general agent of the transportation department. He will be located at Albany, and will have charge of the four transportation divisions. A new department of coal and mining will be formed and will be operated independent of the other divisions".

C. R. Manville was a very patriotic man, and in 1898 he presented 100 American flags to the Delaware and Hudson engineers. During his time as Superintendent of the Pennsylvania Division, the D&H Gravity Railroad closed and was converted to a standard-gauge steam locomotive railroad, and much of C. R. Manville's time as Superintendent was devoted to explaining to the general public, with the assistance of Nick L. Moon, his private secretary, what the consequences of that closing would be, and to conducting the

routine business of the railroad.

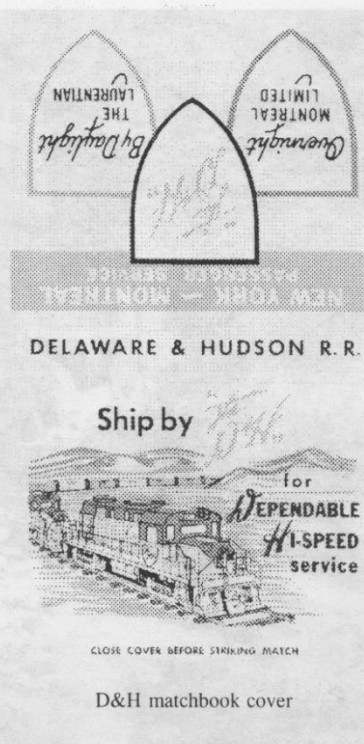
In addition to serving as Superintendent of the Pennsylvania Division, he also served as president of the Fall Brook & Newton Water Company, the Carbondale Gas Company, the Lackawanna Valley Water Supply Company, and the Carbondale Gas Company. The Manville residence in Carbondale was at 54-56 North Main Street.

#### In service of the D&H

Rollin A. Manville and his son, Charles Rollin Manville, both served the D&H as Superintendents of the Pennsylvania Division, the father (Rollin) for 25 years (from 1866 to 1891); the son (C. Rollin) for 12 years (from 1891 to 1903). The father embraced the position and his contributions were many; the son inherited the position from his father, and fulfilled his obligations as Superintendent of the Pennsylvania Division for 12 years. Remarkably, no photographs of Rollin Manville or C. Rollin Manville are known to exist.

DAH-BLHS-DAH-BLHS-DAH-BLHS-DAH-BLHS-DAH-BLHS-DAH-BLHS-DAH

DIAMOND MATCH DIV. ALBANY NEW YORK





50. Derailment at Starrucca Viaduct, July 11, 1964 (See also *SRP Addendum III*, pages 165-166):

Photo posted on Facebook by Jon C. Burdick:



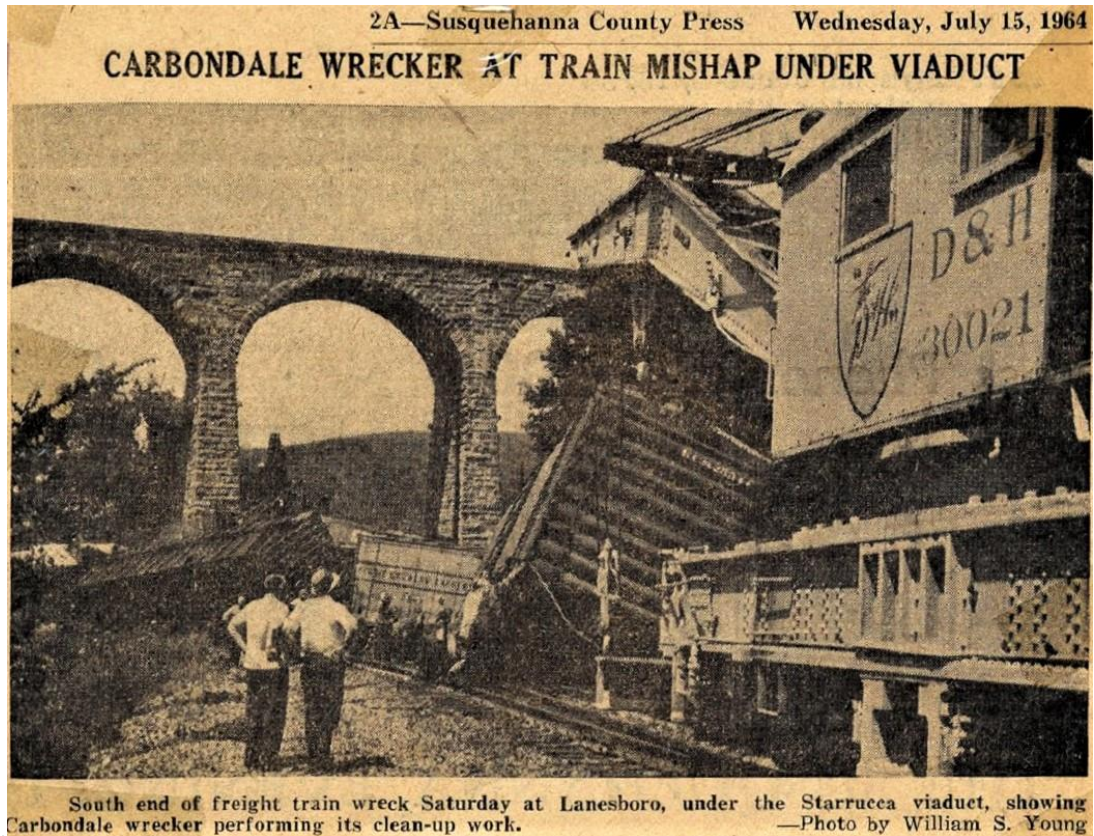
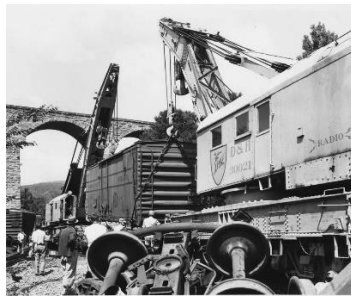
Jon C. Burdick: Close call for the Starrucca Viaduct, I think the year is 1964.

Two witnesses to the accident:

**Audrey L Wolfe:** We walked up the wreckage, once we realized it actually happened it never woke any of us up as the trains are right behind our home, once we were at the wreckage, I stood by one of the train wheels and was amazed at the enormous size of them, other than that this is all I remember of it and being a scary thing to see.

**Donald Soop:** I was a eye whiteness. I was watching the train going by my house and all of a sudden it stopped abnormally fast. I knew what had happened. I yelled to my brother Bill, come on we just had a train wreck. We took his car and went up Dutch Street. We could see from the street. It was a big wreck we had ever seen.

SRP Comment: "Yes, July 11, 1964. Here are three more photos of the derailment; also a newspaper clipping dated July 15, 1964."



Comment, June 2, 7:59 PM, from Mike Bischak on the photo of the wrecker in the above photo:

“...As I continue to look over your Addendum III, I can say that the wrecker at the derailment at Lanesboro on page 165 would most likely have been the Carbondale wrecker as stated in the newspaper photo caption. The only other place that wrecker could've come from was Binghamton, but it would have to travel the Jeff Connection from the EL down to Jeff Jct. (JN Cabin). I don't see that as likely to happen. The wrecker in the distance would've come down from Oneonta...”

51. "The McMullen Family: D&H Pennsylvania Division Managers" by S. Robert Powell (published in the July 2022 issue of the *Bridge Line Historical Society Bulletin*, pp. 16-18; also in that same issue, there is a "Letter" to *The Mail Car* from SRP on page 12):

*For the Record*

**The McMullen Family: D&H Pennsylvania Division Managers**

**by S. Robert Powell, Ph.D.**

In the McMullen family of Wayne County, PA, working for the D&H was a long-standing family tradition.

**Silas K. McMullen**, a descendant of a colonial American Scottish family, was born in 1809 in Pleasant Mount, Wayne County, PA. He became a carpenter and, at the age of 18, was hired by the Delaware and Hudson Canal Company which, at the time, 1827, was constructing its Gravity Railroad, the roadbed of which was supported by numerous trestles of wood (all of which had to be built by skilled carpenters). From 1829, when the Gravity Railroad opened, until 1849, Silas McMullen worked in the lumber business. In 1849, he was again employed by the D&H and had charge of the machinery. On September 29, 1860, while in the act of oiling the machinery at Plane No. 9, the skirt of his coat was caught under the rope while passing over a large sheave wheel, and he was dragged into the machinery. He lived about eight minutes after the accident.

**Silas A. McMullen**, the oldest of the six children of Silas K. McMullen, was born in Clinton Township, Wayne County, on October 9, 1836. From 1865 to 1869, he was engaged in the mercantile business. He came to Carbondale in February 1869, and on March 1 was named Assistant Superintendent of the Pennsylvania Division of the D&H (the Superintendent at that time was Rollin Manville).

One of Silas McMullen's early assignments as Assistant Superintendent was the care of the D&H tracks in Waymart, both as to repairs to the tracks and the running of cars. In that capacity, he succeeded H. Marsh.

In the period 1869-1871, the D&H, under the leadership of Thomas Dickson, President, and Rollin Manville, Superintendent of the Pennsylvania Division, constructed the Valley Road, a steam locomotive line from Carbondale to Scranton. In the history of that line, we read the following:

"In June, 1871, President Thomas Dickson, Superintendent R. Manville, who

constructed the valley road from Carbondale to Valley Junction, and S.A. McMullen, his assistant, made a trip of inspection over the road from Scranton to Carbondale. They used the Gravity passenger car *Monitor*, drawn by engine C. P. Wurts, I. J. Wint engineer, who began firing on the *Major Sykes* in 1866, and who was promoted to engineer of the *Wurts* in 1868. The car was in charge of John Copeland, Gravity passenger brakeman. ... This was the first movement of a passenger car over the locomotive road between Scranton and Carbondale". On July 4, 1871, the Valley Road was officially opened.

In addition to fulfilling his responsibilities as Assistant Superintendent, Silas McMullen guarded well the interests of the D&H and had the confidence of his superior officers, as well as of the men under his direction. In addition to his connection with the railroad, he was a director of the Miners & Mechanics Bank and, beginning in 1876, served as president of the Crystal Lake Water company, with which he was connected since its organization.

In the upbuilding of Carbondale, he manifested a deep concern. His connection with the Carbondale board of education covered a period of eighteen years, during a large part of which time he was its president. He devoted his time and energy to securing for the city a first-class school system, and to him, more than any other man in the place, Carbondale was indebted for its excellent schools and the many fine school buildings.

**William J. McMullen**, another of the sons of Silas K. McMullen, was born March 12, 1844, in Clinton Township, Wayne County, PA. At the age of 16, he began work for the D&H at the coal dumping ground at Waymart, and worked for the D&H his entire life, the last twenty years of which he served as the Trainmaster of the D&H Gravity Railroad system.

In the fall of 1877, when the new passenger coaches were given a trial run on the Gravity line, both William McMullen and his brother Silas were congratulated in the public press for the important role that they both played in the success of all of the

excursions on the Gravity Railroad:

**"A Delightful Excursion—Trial Trip of the new Cars for the Gravity RR."**

"On Tuesday morning, upon invitation of R. Manville, Superintendent, a large party of our townspeople assembled at the foot of No. 1, at half-past ten o'clock, to take an excursion around the 'Switch-back' - to No. 9 and return [via the light track] on the Gravity railroad - in the beautiful new narrow-gauge cars just built for the accommodation of passengers between this city and Honesdale. These cars have the seats crosswise instead of lengthwise, as in the former cars used on the Gravity road. ... About one hundred and fifty of the ladies and gentlemen of Carbondale gladly availed themselves of the invitation extended by the *brothers McMullen* [emphasis added], assistant superintendents, from their worthy chief, and after all were comfortably seated the rope was pulled, the bell

*continued on page 18*

*Page 17:*

**Top left:** Silas A. McMullen; see his story in this issue. Image provided by **S. Robert Powell, PhD.**

**Top right:** William J. McMullen; see his story in this issue. Image provided by **S. Robert Powell, PhD.**

**Bottom:** D&H 142 with passenger train at Panther Bluffs. From **S. Robt. Powell**, who notes, "The name on the tender, which looks like it might have been painted over / revised, is D. & H. CO. A couple of years were required for the complete conversion of the former Gravity line into a steam locomotive line. When this photo was taken (in or after 1899, when the Gravity Railroad closed), Shepherd's Crook had been converted into a switchback, as switchbacks would have been impossible on the Gravity line. This is probably the first train from Carbondale to Honesdale on the then-being-created Honesdale Branch of the Delaware and Hudson Railroad".

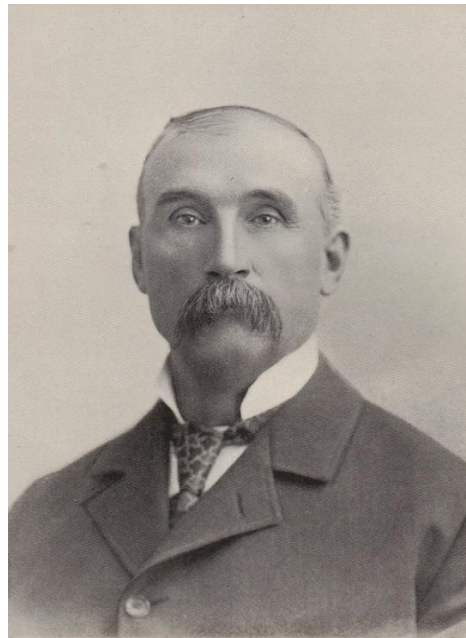
16

BLHS Bulletin - July 2022

107



SILAS A. McMULLEN.



WILLIAM J. McMULLEN.



For the Record from page 16

rung, and up plane after plane went the fairy-like train toward the clouds, loaded with precious freight. After reaching the top of the mountain, the train was switched upon the 'empty' or return track, and commenced its descent. ... *Too much praise cannot be accorded to Mr. Wm. McMullen, for the careful supervision he gives these excursions* [emphasis added]. Through his vigilance, and by having careful employees, he takes a party over what would otherwise be a risky route with all the safety of a pedestrian on a smooth street. Well may the Delaware and Hudson Co. be proud of its railroad superintendents, assistants, and employees, for to their care are the public indebted for the fact that no serious accident has ever occurred upon their roads. ..." (Carbondale Advance, October 6, 1877, p. 3)

As Superintendent of the Gravity Railroad, William J. McMullen had charge of all D&H excursions to Farview Park and elsewhere. Under his watchful eye, thousands of excursion passengers were carried over the line annually, without a single accident. In the public press, we read: "... That these excursions to Farview have been so well and safely conducted is largely owing to the careful, intelligent personal supervision of the assistant superintendent of the road, Mr. William McMullen, who yet does his work so quietly that probably but few of the excursionists know how much they are indebted to him for their pleasure and safety". (The Journal, August 5, 1886, p. 3)

As Gravity Railroad superintendent, William McMullen had a very hands-on supervisory approach. Here are three announcements from the public press, for the period 1885-1886, which highlight his managerial style:

**Preparing for the new boilers at No. 8:** "Henry Lippert, Ed. Inch, William Hunter, Hiram Inch, Wallace Case and men under the direction of Mr. Wm. McMullen, are at work at No. 8 getting ready for the new boilers..."

**New engine and boiler house at No. 8 will soon be finished:** "The new engine and boiler house at No. 8 will soon be finished. Wm. McMullen is giving the work his personal attention, and when finished it will be one of the best buildings on the road".

**Improvements at Planes 5, 6, 12, and 18 by William McMullen.** "Wm. McMullen has put planes 12 and 18 in first class order, and is now putting new ties and new rails on planes 5 and 6".

William J. McMullen was a key figure in the conversion of the Gravity Railroad into the Honesdale Branch of the Delaware and Hudson Railroad at the end of the nineteenth century. Under his supervision, the Gravity-gauge tracks were all changed to standard gauge between Saturday night, January 21, 1899, and Monday morning, January 23, 1899. In addition, it was he who supervised the construction, between Farview and Waymart, of the South Canaan Loop, which replaced Gravity planes Nos. 9, 10, 11, 12, 18, 19, and 20. William McMullen also directed and supervised the conversion of Shepherd's Crook into a switchback. Tragically and ironically, William J. McMullen, who spent more than 20 years making sure that no passengers on the Gravity Railroad were injured or killed while traveling on the Gravity Railroad, was killed in an accident at Panther Bluffs on the Gravity Railroad in February 1900. In the public press we read:

**"KILLED BY AN ENGINE.** William McMullen, Honesdale Branch Trainmaster, Accidentally Killed at Panther Bluff Last Night.

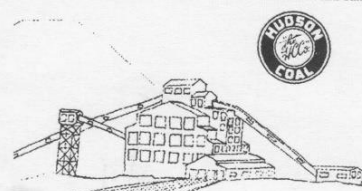
"Trainmaster William McMullen of the Honesdale branch was instantly killed last evening about half past five o'clock. Mr. McMullen was returning from a tour of inspection over the branch on engine No. 53, and at Panther Bluff got off to throw a switch. He signaled engineer Colvin to back up, and in crossing the track in front of the moving engine, the tender struck him. No one saw the accident, the crew not knowing that it occurred until his body was seen under the locomotive. With the hope that life had not departed entirely, the body was hastily moved to his home on Church Street and Dr. S.S. Shields summoned. Upon examining the remains the doctor decided that death occurred instantly. ..."

In his obituary, we read: "As a superior officer, the deceased was firm and insisted upon strict attention to business by those under him. He never allowed his personal likes or dislikes to enter into his business, and as one man who has known him for years puts it, 'the greatest harm he

would do to you would be to let you alone'. He was a man little known outside his business, his whole attention being concentrated upon his duties. ... Seldom does a community receive such a shock as that experienced in the tragic death of William McMullen. For many years he was a leading figure in the railroad life of Carbondale. He was known to nearly every one in the community and was very successful in his chosen business. Of robust build, he seemed a man destined to live yet a half century, and within that sturdy, massive frame; there existed a vein of good nature, to which his acquaintances and the men under him can testify. ... In a business way, he was entirely a self made man, and the thorough knowledge of railroad duties which he possessed he acquired in actual experience. In nearly every line of the work he was versed, including civil engineering and bridge building. He held a unique place which will probably never be filled. ... In his death, the Delaware & Hudson company has lost a faithful and capable servant". (clipping dated Saturday, February 17, 1900)

Such, then, is a quick look at the D&H Railroad careers of Silas K. McMullen and his sons, Silas A. McMullen and William J. McMullen. Employees such as they contributed significantly to the success of the D&H in the nineteenth century.

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*BLHS Bulletin*, July 2022, p. 12:

**Last passenger train to Scranton**  
from S. Robert Powell

It was very nice to see D&H #500 and its crew on the cover of the June 2022 issue of the *Bulletin*. Thank you, Mike **Bischak**, for making available this wonderful photograph for publication. Seen on the footboards in this photograph by Mike Zrowka, now in the collection of Mike **Bischak**, are, left to right: Harry Kennedy, fireman; Lewis Davis, engineer; William Lever, trainman; Vere Christian, ticket collector; and J. Louis Colvin, conductor. Top row, left to right: John Kohut, trainman; Joseph McGarry, car inspector; and Joseph Crane, baggageman.

The photograph is of the last D&H passenger train and its crew, operating between Carbondale and Scranton. That run took place on Friday, January 5, 1952. D&H #500, in this photo, is stationed on the D&H main line tracks in front of the Carbondale D&H Seventh Avenue station.

Engineer Lewis Davis also piloted the last D&H passenger train between Carbondale and Wilkes-Barre, and the last passenger train between Carbondale and Nineveh.

In 1890, there were 19 D&H passenger trains, daily except Sunday, between Carbondale and Scranton (and 19 from Scranton to Carbondale). In July 1892, a D&H passenger train from Carbondale, with D&H Vice President, H.G. Young, and Superintendent C.R. Manville on board, made the 16-mile trip to Scranton, with eight station stops, in thirty minutes.

52. Coal breaker in Hawley, PA; correspondence with Peter Becker from the *Tri-County Weekly*, June 15, 2022:

## June 15, 2022: Breaker in Hawley

Peter Becker pointed out this breaker in Hawley (shown on the 1872 map details given below):



Peter Becker, June 15, 2022: “Attached is a PHOTO of Hawley's breaker and coal pockets. Shanty Hill is at left. In the foreground is the Shanty Hill bridge that crossed Middle Creek. The bridge washed out in the 1942 flood. Notice all the coal cars on the PCC. The breaker was built in 1871, and it was burned down in 1886, likely due to an arsonist.

June 15: Peter:

Yes, I see it. That's news to me.

I can't believe the PCC would send coal directly from the mines in the Lackawanna and Wyoming Valleys to Hawley to process it in a breaker in Hawley. If it was a conventional breaker that processed coal directly from the mines (as most breakers were), there would be (or was) a culm pile nearby.

There were at least 15 breakers in Dunmore in the first Anthracite District (see Rudy Kuntz list given below), as well as 15 or more PCC breakers in the Second Anthracite District (see list given below). Surely, all coal direct from the PCC mines would have been processed in those breakers before being sent to Hawley.

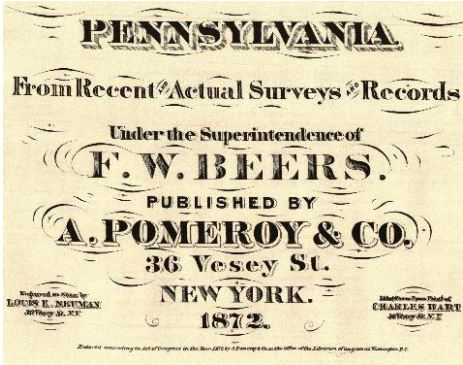
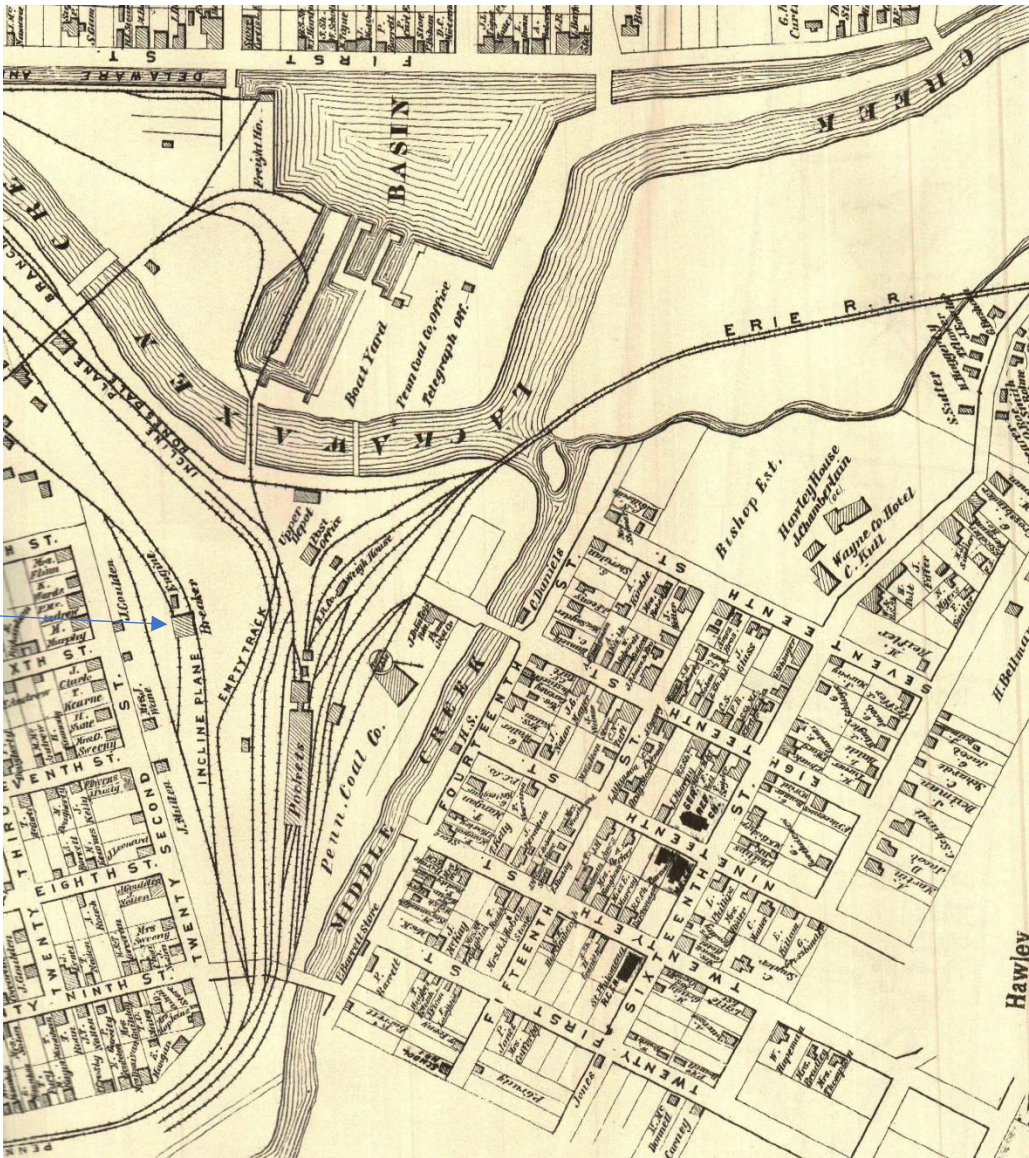
So why was there a breaker in Hawley? Here is a possible explanation: For the sake of the

argument, let's assume (1) that the PCC had a good supply of "lump" coal in its pockets at Hawley, and (2) that a customer had a need for ten car loads of "chestnut" coal, and (3) that the PCC didn't have any "chestnut" coal in its pockets in Hawley. How could the PCC fulfill, in a timely manner (i.e., not having to have ten car loads of "chestnut" coal sent to Hawley from Dunmore) that customer's order? Possible solution: The PCC could have downloaded ten car loads of one of the larger sizes of coal ("lump" for example) from its coal pockets in Hawley and passed that coal through the breaker at Hawley and broke it down/converted it into "chestnut" coal, and then fulfilled the order for ten carloads of "chestnut" coal.

Robert



Breaker in the empty track area at Hawley



## Pennsylvania Coal Company Collieries

In 1887, the Pennsylvania Coal Company had the following collieries, all in Dunmore, in the First Anthracite District: Shaft No. 1; Shaft No. 2; Shaft No. 3, Gypsy Grove; Shaft No. 4, Gypsy Grove; Shaft No. 5.

In the Second Anthracite District in 1887, the PCC had the following collieries, all in Luzerne County (with the exception of Shaft No. 13 and the Old Forge Shaft): Barnum Shaft No. 1 (Mercy Township), Barnum Shaft No. 2 (Mercy Township), Laws Shaft (Pittston Township), Shaft No. 13 (Old Forge Township), Old Forge Shaft (Old Forge Township), Shaft No. 9 (Hughestown borough), Shaft No. 10 (Hughestown borough), Shaft No. 10 Jr. (Hughestown borough), Abbott's Slope (Hughestown borough), Shaft No. 1 (Hughestown borough), Shaft No. 8 (Hughestown borough), Slope No. 4 (Jenkins Township), Shaft No. 7 (Jenkins Township), Shaft No. 5 (Jenkins Township), Shaft No. 6 (Jenkins Township), Shaft No. 11 (Jenkins Township), Shaft and Slope No. 14 (Jenkins Township), and Hoyte Shaft (Jenkins Township).

In an article by Rudy Kuntz titled "Dunmore Coal Companies and Breakers" that was published in *The Gazette* of the Dunmore Historical Society, Volume 3, Number 7, December 2011, pp. 4-5, we read the following about the Dunmore Breakers that were operated by the Pennsylvania Coal Company:

"Dunmore Breakers operated by the Pennsylvania Coal Company included **Bunker Hill** Breaker in the fifth ward; **Gypsy Grove No 3**, located north of Prospect Street in the first ward. The Gypsy Grove mine shaft was opened in 1857; **Penna. Coal Co. No. 1**, located between the Gypsy Grove Breaker and N. Blakely Street, the shaft opened in 1885 and the breaker completed in 1888; **Penna. Coal Co. No. 4**, located at Gypsy Grove, **Penna. Coal Co. No. 2**, located between Third Street and Prescott Avenue in the third ward; **Penna. Coal Co. No. 5**, located west of Dudley Street behind Town Hall in the sixth ward, the mine shaft opened in 1882 or 1883 and the breaker completer [sic] in 1884. / The Spencer Coal Company operated the Spencer shaft (aka Roaring Brook shaft) off E. Drinker Street, a few blocks from the Dunmore corners, that was connected eastward up the Spencer slope to the **Spencer Colliery**. The Spencer mine shaft was opened in 1855 by Edward Spencer and was known as the Roaring Brook mine, the oldest in Dunmore. There was also a **Spencer Breaker** on Mead Street. These were operated by A. D. and F. M. Spencer. Andrew D. Spencer (c1839) was the son of Edward & Elizabeth (De Ved) Spencer. Elizabeth died in 1846. Frank M. Spencer (c1859) was the son of Edward & Susan (Hinds) Spencer. / Carney and Brown Coal Company operated the **Carney & Brown Colliery**, on Jessup Street. This was also called the **Murray Breaker**. In 1891 A. J. and M. J. Murray, George Jackson and Thomas Brown were in the coal business in Dunmore, when John Carney purchased the share of Mr. Jackson. In 1902 Mr. Carney and Mr. Brown bought the interest of the Murrays, from which time the firm was known as Carney & Brown. The colliery was opened in 1885. John Carney was General Superintendent of the Carney and Brown Coal Company. His brother-in-law Michael J. Murray

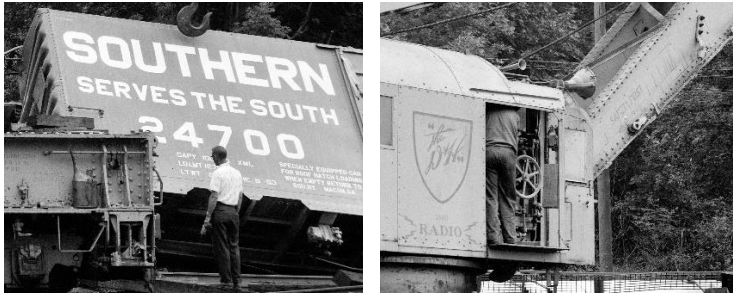
was General Superintendent of the Northern Anthracite Coal Company. Another brother-in-law was Anthony J. Murray. The Carney and Brown Coal Company later became the Meadowside Coal Company. / Some other listings include the **DePuy Breaker**, at Mead and Lane Streets. The DePuy Coal Company was operated by Harry DePuy. / There was a **Nay Aug Coal Company Breaker**,\* located 900 feet south of the Spencer Breaker on Mead Street, on the Roaring Brook. The Nay Aug No. 4 Coal Company was organized in March 1908. This later became the Maco Coal Company. . . The Nay Aug Coal Company operated the **Gibbons and Nay Aug Collieries**. / **John J. Boland & Company** had a breaker on Jessup Street near Laurel Lane. / The **Thomas F. Quinn Breaker** and mine was [sic; “were”] located on Mead Street between Smith and Foot Streets.”

\* More on the Nay Aug Coal Company: *PABRLC*, pp. 1041-42: "WILLIAM J. HAND is president of the Nay-Aug Coal Company, operating in Dunmore." William J. Hand, born in Scranton, July 26, 1866, was a son of the Honorable Alfred Hand.

53. Lanesboro accident, July 11, 1964. The material given below was posted in [Remember Susquehanna Pa](#) by Michael Higgins and re-posted in D&H group by John Cudo.

1964: D&H Wreck Crew at Starrucca Viaduct, Lanesboro, PA, July 11, 1964:





Comments:

**John Bifano:** I think that was the wreck where a boxcar of Bacardi white rum bound for PA state liquor stores derailed and was rejected by the PA Liquor Board. Somebody liberated a whole bunch of bottles before they were destroyed. Many found new homes and 12 found their way to the Bifano household in Carbondale.

54. Photo taken on September 22, 1972 by Rich Pennisi of four D&H Diesels, heading south through Carbondale; photo posted by Rich Pennisi in the D&H Group on Facebook on June 24, 2002:



Rich Pennisi: "I'm at Carbondale, Pa on 9-22-1972 and we see D&H 705 and 3 sisters about ready to slam over the frog of a electric power operated dispatcher-controlled crossover switch. My photo."

On the left, in the background: Our Lady of Mount Carmel Church. On the right, in the background, the Dundaff Street Viaduct.

55. Carbondale, PA: O&W and mine fire photo, posted on Facebook, June 29, 2022, by Walter Kierzkowski:



56. D&H Float in Carbondale Centennial Parade, 1951 (CHS&M photo). The photo given below, and the following text, were posted by S. R. Powell in the Delaware and Hudson Facebook group on July 3, 2022:

“The village of Carbondale was incorporated as a city on March 15, 1851, and became, therefore, the first incorporated city in Lackawanna County--which is why Carbondale's nickname is the "Pioneer" (meaning "first" ) City". (Carbondale is the fourth oldest incorporated City in the Commonwealth of Pennsylvania--after Philadelphia, York, and Lancaster.) A week-long celebration, featuring numerous parades, took place in 1951, when the City of Carbondale was 100 years old. Shown here is the D&H float in one of those Carbondale Centennial parades.”



(45 “likes” on Facebook in 12 hours)

57. Walter Kierzkowski posted the photo shown here with this note: "NYO&W Mayfield Yard new Round house south end. Erie coal breaker across the river, with D&H tracks running in front of it."



58. Three photographs of NYO&W stock pens at the north end of the O&W Mayfield Yard that were posted on Facebook on July 9, 2022 by Waler Kierzkowski. In the second of these photos, note the O&W Yard Office in the upper right corner of the photo:

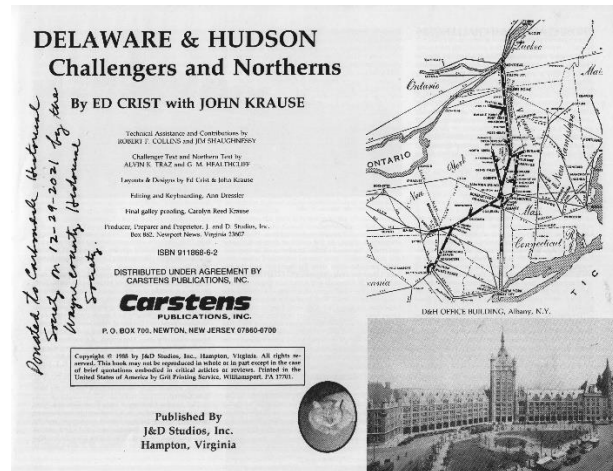
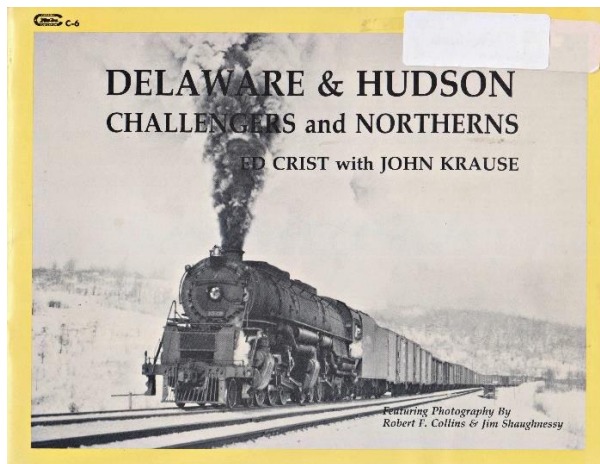


Another stock pen at the Mayfield Yard. Notice Powderly Breaker in background.



59. *Delaware & Hudson Challengers and Northerns* by Ed Crist and John Krause. Post by SRP on Facebook in D&H group on July 19.

**“Delaware & Hudson Challengers and Northerns** by Ed Crist and John Krause, Challenger Text and Northern Text by Alvin K. Traz and G. M. Heathcliff, featuring photography by Robert F. Collins and Jim Shaughnessy. This is a superior book in every way. Eighty pages, over 175 photos of Challengers and Northerns, all with detailed captions. The text of the book by Alvin K. Traz and G. M. Heathcliff is excellent. The book was copyrighted in 1980 and it is now probably out of print. You might be able to find it in a railroad bookstore or a hobby shop that sells railroad books. If you ever see a copy of this wonderful book for sale, buy it. You’ll be glad you did.”



40+ “Likes” on Facebook over night.

**Brian Burns:** D&H and UP both bought into both designs from Alco wholeheartedly.

**Don Hodun:** Just found it used on Amazon

**Becky Whiting:** From what I read, the D&H challengers were the first challengers built with the rigid center pivot which kept the front engine frame in line with the rear and the suspension of the axles was to take up any track variations. The result was an engine that tracked superbly at speed without the hunting that sometimes accompanied articulateds prior to this. The dimensions of the D&H engines were close to UPRR but I would add so were most of the challengers made. Some of the western roads had challengers that were heavier and had larger fireboxes which was due to the need of more square feet to burn Lignite coal which is a very low grade of bituminous. The design of the UPRR challengers was pretty close to the ideal as far as moderate axle loading and good tractive effort and rate of adhesion along with high enough horsepower to get the train over the road. D&H used better coal than the UP so it is possible that their challengers had bit more horsepower at speed. The northerns were ordered as a part of a joint WP and MILW order and the

dimensions of these are all similar. The drivers were considerably smaller than the 80" on the UP and even at 75 inches were the largest to ever roll on the D&H.

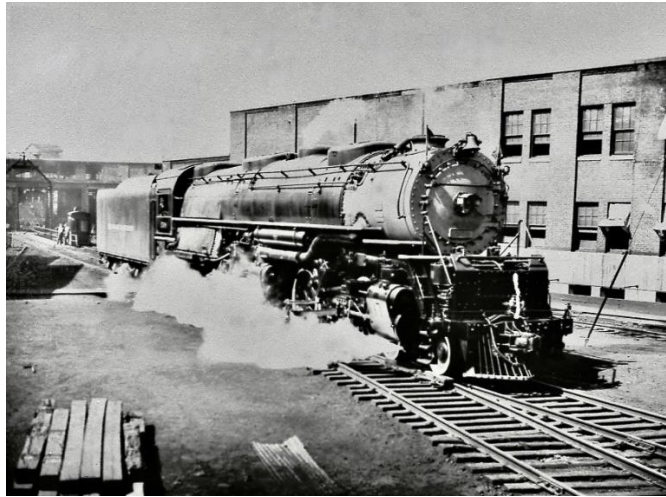
**Andrew Gar:** I thought it was Rock Island, MILW, and D&H that had similar engines. Not WP

**Becky Whiting:** You are probably right. My memory is not what it used to be

**Chuck Porter:** Outstanding book

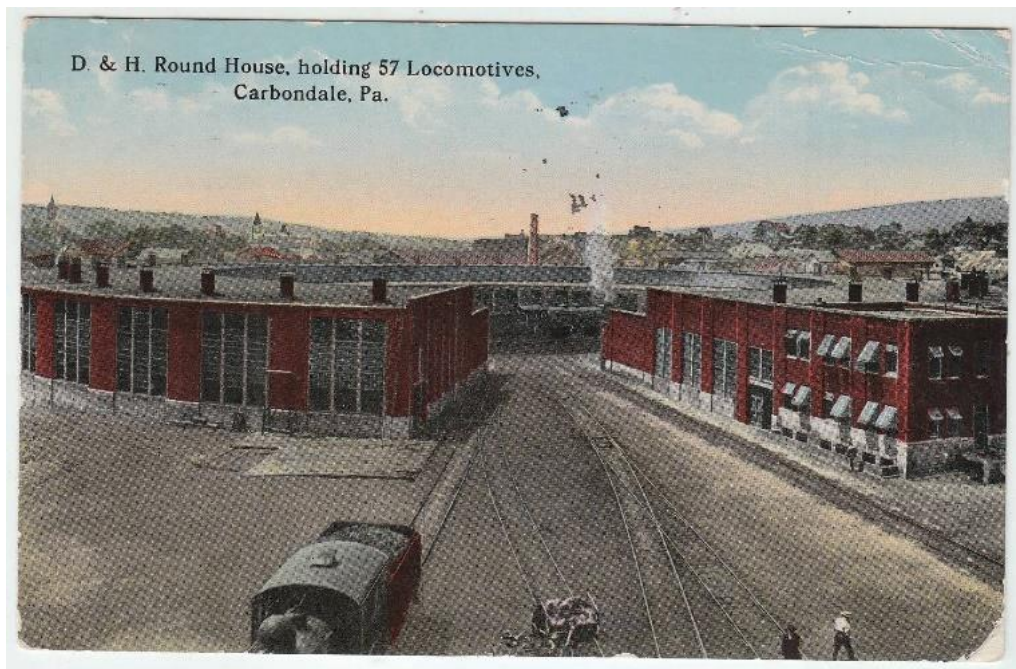
**Mark H. Charles:** Carstens published or sold some great books in that era.

60. Engine exiting Carbondale Roundhouse; Facebook post by Robert Wanner on July 24, 2022:



**Luke Kolz:** Carbondale, Pa?

**Silas Robert Powell:** Yes. Luke Kolz is correct. The engine is making an exit from the Carbondale roundhouse, which can be seen in both photos. In the color post card shown here, the tracks and the building in the background are the same. The caption on the post card is incorrect: 41 stalls and not 57.



**Geoff Ross:** Strange. The Turntable at Carbondale was 105 feet, shorter than the length of a J class Challenger which was IIRC 117 feet. The engine must have been run into the stall directly in line with the approach track as the engine could not be turned.

See article by SRP titled: "D&H Challenger No. 1502 on the Carbondale Turntable" (*Bridge Line Historical Society Bulletin* (September 2018, pp. 12-13, 15).

61. Dimock's Grove, Waymart, PA. In July 2022, Tim Gombita found a D&H Gravity rail in Dimock's Grove:

On Tue, July 26, 2022 at 6:51 PM [morecowbell123@yahoo.com](mailto:morecowbell123@yahoo.com) wrote:

Hi Robert,

This rail is in the woods where that Dimmock grove was in Waymart. Do you have any idea on the age? It's about 3' long and about 2.5" - 3" high.

Regards,

Tim Gombita

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to morecowbell123@yahoo.com

July 30, 2022

Tim:

Nice photos of Gravity rail in Dimock's Grove. Finding the rail there really nails down the location of Dimock's Grove. Dimock's Grove opened in 1877 and closed in 1884. It was put out of business, so to speak, by Farview Park. The huge success of Dimock's Grove was the stimulus that led to the establishment by the D&H of Farview Park, which opened in 1885.

It would probably be a good idea to remove the rail from the spot where you located it (print out your photos and label them: "Gravity Railroad rail, found at the site of the former Dimock's Grove, Waymart, etc..[your name and date]." If someone else comes across the rail, they might well take it and turn it over to some scrap dealer for cash.

The rail that you found should stay in Waymart. Offer it to Jane Varcoe. If she declines your offer, we'd be pleased to have it in Carbondale (even though we have several pieces of Gravity rail already).

In the attached file (pp. 244-260 from my D&H Volume VIII), there is a lot of material on Dimock's Grove.

Keep digging.

Best,

Robert

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[morecowbell123@yahoo.com](mailto:morecowbell123@yahoo.com) 1:02 PM, July 30

Thank you for all of that information Robert!

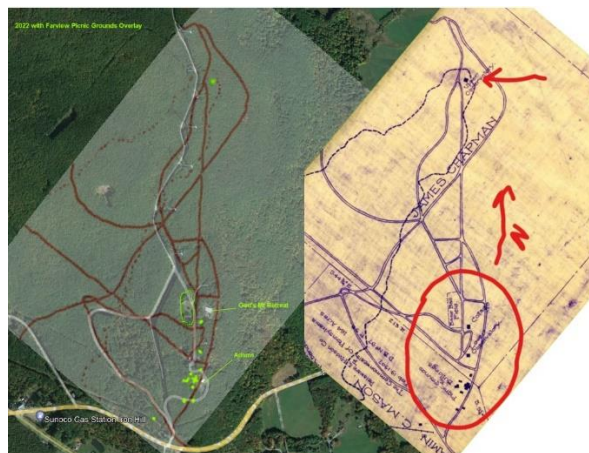
I did take the rail out of there thinking the same about someone selling it for scrap.

I will take it to Jane and offer it up. If she refuses, I will definitely deliver it to you.

Best Regards,

Tim Gombita

62. Map of the D&H Farview Park superimposed /overlaid on 2022 Google Map by Tim Gombita, July 2022:



63. Junction of the D&H and the Wilkes-Barre Connecting Railroad, photo by Rich Pennisi, posted in the D&H Facebook group, August 7, 2022:

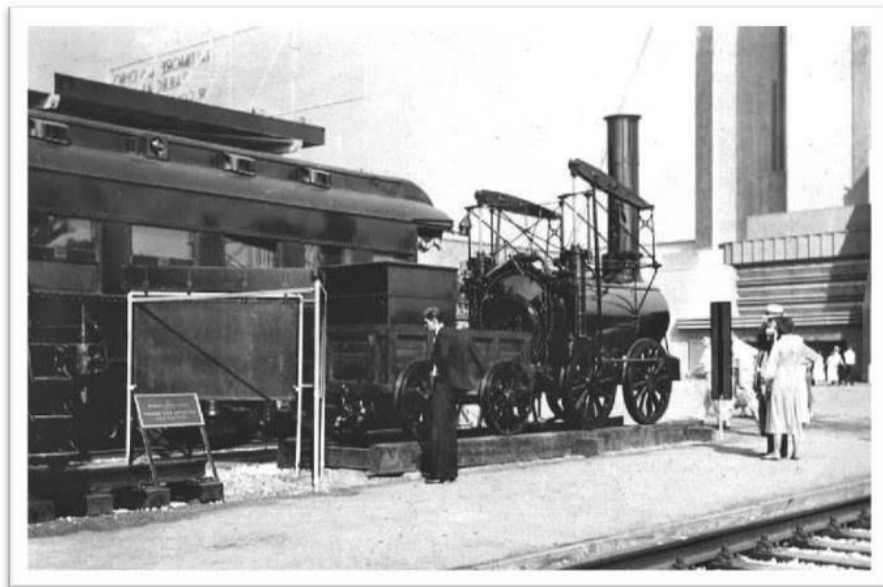


D&H post noting where D&H and Wilkes-Barre Connecting Railroads began and/or ended. This was located at Hudson Yard, circa 1969. Rich Pennisi photo, all rights reserved.

64. Two new Stourbridge Lion photographs surfaced on Stourbridge Lion Day (August 8), 2022, and were posted on Facebook:



Stourbridge Lion monument in Birmingham, England



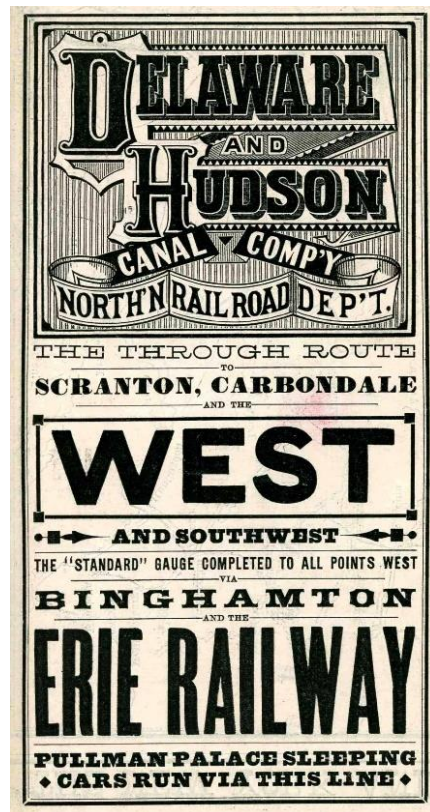
Fully working replica of the *Stourbridge Lion* that was made at the D&H shops at Colonie, NY and exhibited at the Century of Progress

65. Valley Road timetable, posted by Will Davis in D&H Facebook group, August 15, 2022:

**Delaware & Hudson R. R.**  
TAKES EFFECT NOV. 10, 1873.  
**TRAINS MOVING NORTH.**

STATIONS.	2	4	6	8	10		
	A. M.	P. M.	P. M.				
D. L. & W. Depot..	9 50	2 20	7 20	A. M.	P. M.		
SCRANTON .....	9 55	2 25	7 25	8 05	2 30		
Green Ridge .....	9 59	2 30	7 30	8 20	2 40		
Providence .....	10 03	2 33	7 34	8 30	2 55		
Dickson,.....	10 07	2 37	7 38	8 38	3 07		
Olyphant .....	10 13	2 42	7 46	9 05	3 20		
Peckville... ..	10 19	2 47	7 52	9 14	3 32		
Archbald .....	10 25	2 56	7 58	9 25	3 48		
Gibsonburg.....	10 31	3 03	8 06	9 35	4 03		
CARBONDALE. ....	10 43	3 15	8 18	9 54	4 30		
	A. M.	P. M.	P. M.	A. M.	P. M.		

66. D&H poster that was posted on August 15, 2022 in the D&H Facebook group by Lance Erickson:

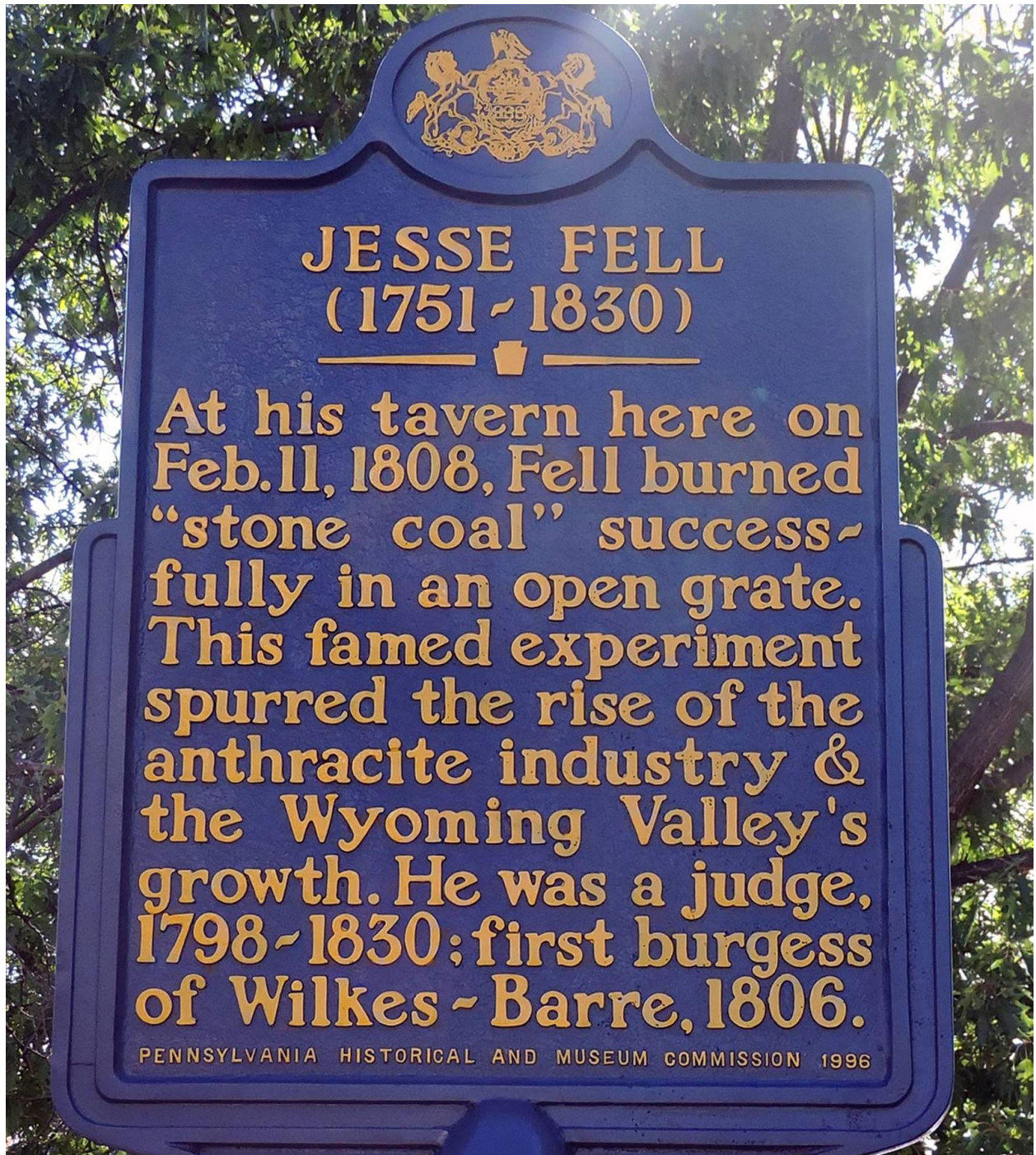


**Comment by SRP** posted below this poster on Facebook: “When the U. S. government decided to build a railroad to the Pacific, a congressional act was passed, in 1862, which authorized the President of the United States to fix the gauge of the Pacific road. President Lincoln chose 5 feet. The President’s ruling was not accepted. The quarrel was transferred to Congress, which, in March 1863, passed a law naming 4 feet 8 ½ inches as the gauge of the Pacific Railroad. The declared government standard soon became virtually universal in the United States. The D&H leased the Albany and Susquehanna Rail Road on February 24, 1870. My guess is that this very nice poster was published between 1870 and 1900.”

**Chris Murphy:** Didn't the D&H, and the Erie, both go to standard gauge in 1878?

**Silas Robert Powell:** The first standard-gauge tracks on the D&H were constructed in February 1860 in the Lackawanna Valley in Pennsylvania (from the foot of D&H Gravity Railroad Plane No. 23 in Olyphant to Providence). Standard-gauge tracks (56 ½ inches) were not yet recognized as the norm for American railroads. That would not happen until March 1863 when the U. S. Congress determined that the gauge of the Union Pacific railroad would be 56 ½ inches. At that time, most American railroads adopted 56 ½" as the gauge of their tracks. (The A&S, the Erie, and the DL&W, nevertheless, among others, chose six feet as their gauge.) On February 24, 1870, the D&H leased the A&S for 99 years, and installed a third rail in the line to make it possible for D&H standard-gauge cars to pass over the line; third rail installation completed by D&H on December 14, 1871.

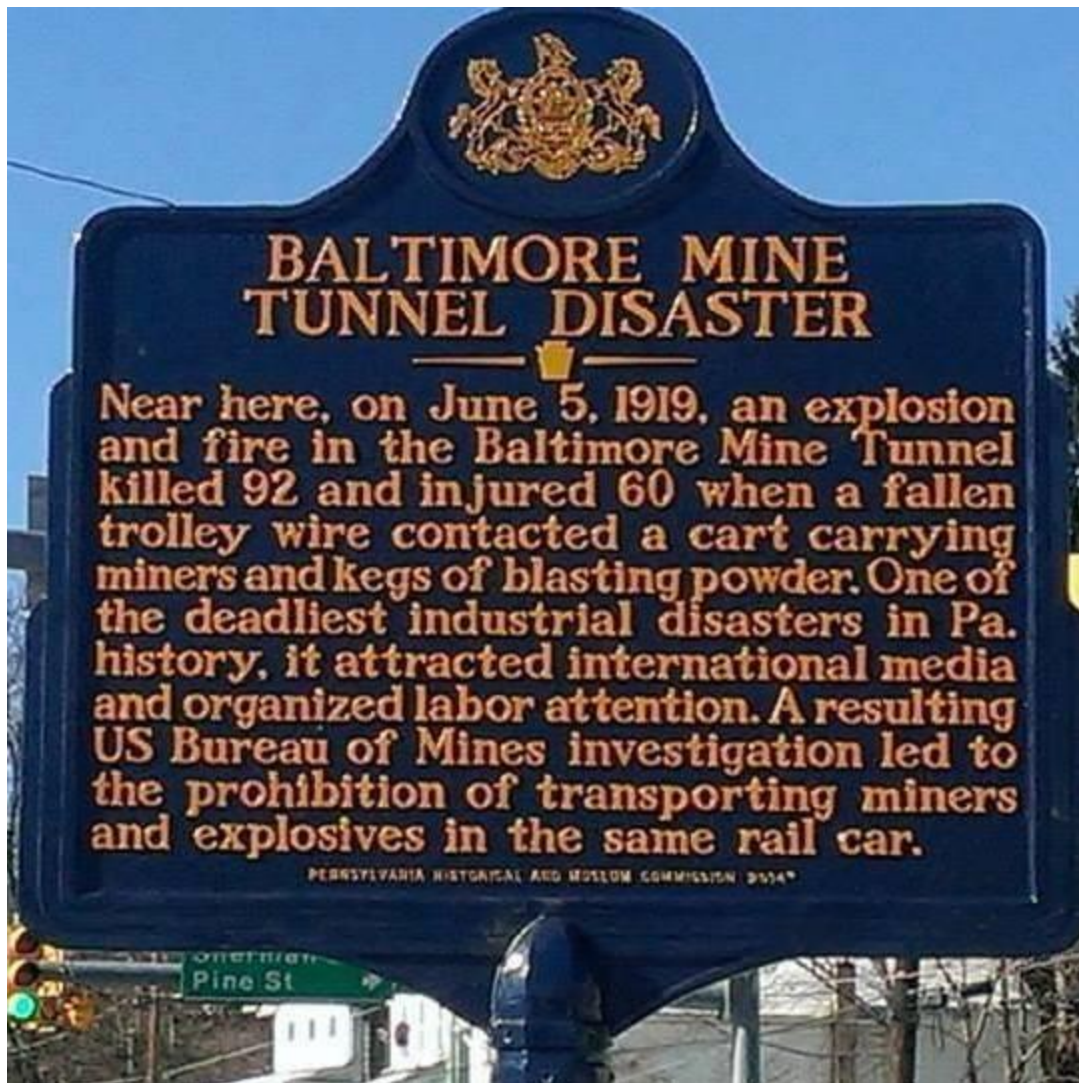
67. Photos of four D&H-related PHMC Historical Markers in Wilkes-Barre that were posted on Facebook, August 29, 2022:



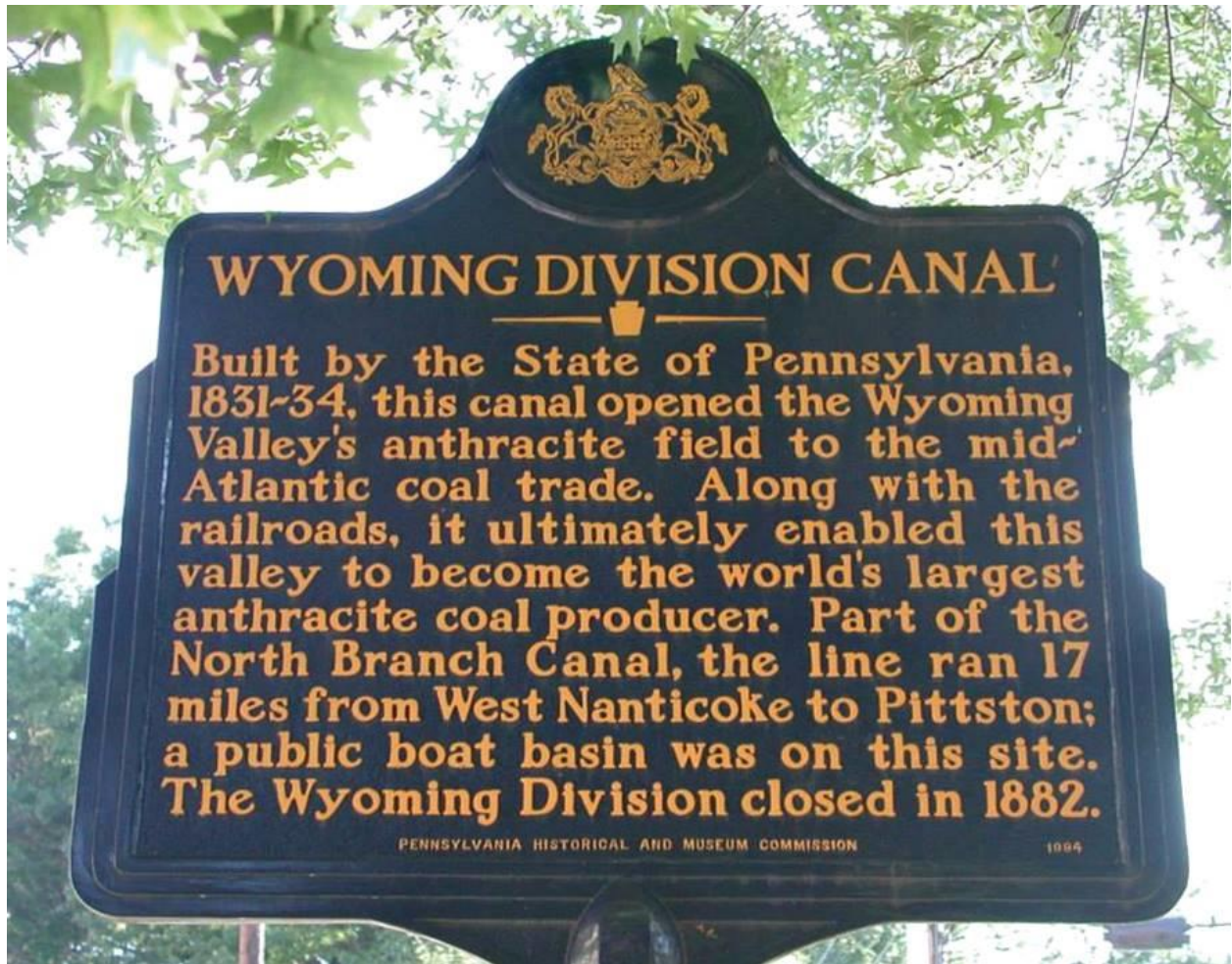
JESSE FELL  
(1751-1830)

At his tavern here on Feb. 11, 1808, Fell burned "stone coal" successfully in an open grate. This famed experiment spurred the rise of the anthracite industry & the Wyoming Valley's growth. He was a judge, 1798-1830; first burgess of Wilkes-Barre, 1806.

PENNSYLVANIA HISTORICAL AND MUSEUM COMMISSION 1996







68. On the D&H Group's Facebook page, on September 1, 2022, Bert Prohaska asked: "Any information or opinions on the authenticity and provenance of this sign [Lackawanna Coal The D&H] displayed at LaSalle The Image Makers Clothing in Scranton?" Here are three responses:.



**Silas Robert Powell:** There are five things "wrong" with the LaSalle sign. In my humble opinion, it's a reproduction. Shown here is a photo of an original sign. It's a little battered, but it's an original.



5 “likes”(Norm J. Barrett, Joseph Senese Sr., Greg Flynn, Louis A. Bucci, and Bert Prohaska) and 1 “love” from Henry Sommers.

**Bert Prohaska:** Thank you. Where does this exist?

**Silas Robert Powell:** It's in the collection of an owner who prefers to remain anonymous.

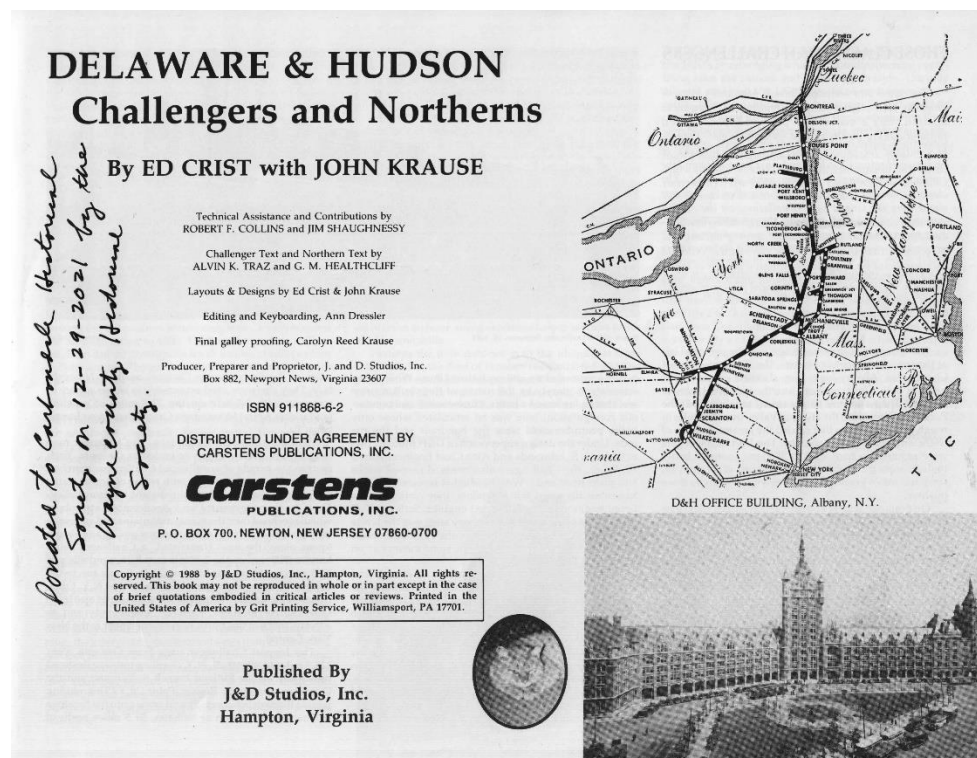
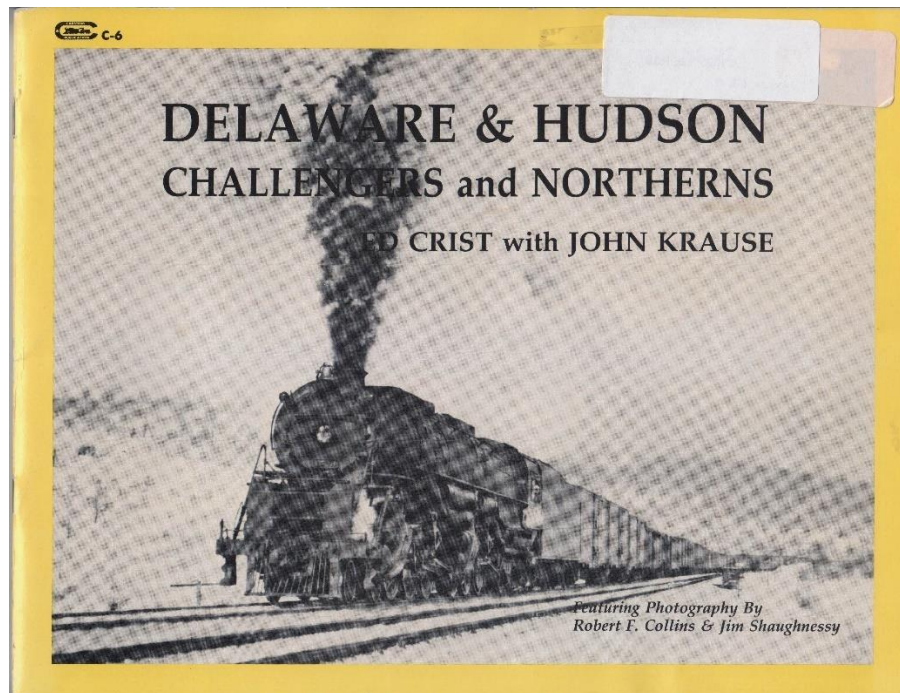
**Joseph Senese Sr.:** That is a definite repro

**Joseph Senese Sr.:** This is a real one along with the one **Silas Robert Powell** posted



**Greg Flynn:** The pic you posted is as I remember them. I never saw one that said “Lackawanna Coal”.

69. *Delaware & Hudson Challengers and Northerns* by Ed Crist; post by SRP on September 4, 2022, in the D&H Facebook group:



Posted by SRP on Facebook D&H page on July 19, 2022:

**“Delaware & Hudson Challengers and Northerns** by Ed Crist and John Krause, Challenger Text and Northern Text by Alvin K. Traz and G. M. Heathcliff, featuring photography by Robert F. Collins and Jim Shaughnessy. This is a superior book in every way. Eighty pages, over 175 photos of Challengers and Northerns, all with detailed captions. The text of the book by Alvin K. Traz and G. M. Heathcliff is excellent. The book was copyrighted in 1980 and it is now probably out of print. You might be able to find it in a railroad bookstore or a hobby shop that sells railroad books. If you ever see a copy of this wonderful book for sale, buy it. You’ll be glad you did.”

More about Ed Crist that was posted on Facebook, September 5, 2022:

The Edward J. Crist Collection of Orange County Railroad History contains artifacts showcasing the importance of Orange County’s railroads and how they influenced the Hudson Valley’s industrial development: <https://alexprizgintas.com/orange-county-railroad-history/> . A large portion of the collection features over 1,000 documents, postcards, and images of local railroads from the mid-nineteenth century to the present day. In addition to paper materials, the collection also contains a large number of artifacts including railroad signage, over twenty lanterns, period dining car china, antique railroad tinware, and more. Some examples featured are a sign from the Erie Railroad’s Harriman, NY station, concrete whistle and mile markers from the Erie Railroad’s Newburgh Branch, a large variety of “summer homes” vacation guides from the New York, Ontario & Western Railway, and a one-of-a-kind banner from the New York, Ontario & Western Railway’s Veterans Association.

Edward J. Crist was a resident of Orange County, New York and a historian of railroads in the tri-state area. Growing up in Cornwall, Ed was first employed by the Lehigh & Hudson River Railway Company of Warwick, NY before publishing his first book, *The Final Years: New York, Ontario & Western Railway*, in 1977. Both on his own and with fellow railroad historian John Krause, Ed continued to author several works including *Delaware & Hudson Challengers & Northerns* [emphasis added], *Erie Memories*, *Lackawanna Heritage*, *Lehigh & Hudson River Volumes I & II*, *Lehigh & New England*, and *Susquehanna*. After his passing in 2018, I was honored to inherit Ed’s sizable collection of documents pertaining to Orange County railroads as well as his own work as a railroad historian.

70. DL&W material to be given to DL&W Historical Society:

On September 2, 2022, Via Facebook Messenger, the Carbondale Historical Society offered to give to the DL&W Historical Society a box full of DL&W materials in the collection of the Carbondale Historical Society. Hank Sweetman (President of the DL&W Historical Society) replied on September 2, as follows:

## DL&W paperwork

Inbox

H

**Henry Sweetman** <hanksweetman@gmail.com>

Fri, Sep 2,  
5:07 PM

to me

Dear Mr. Powell

Our Society would be very grateful to receive the items that you are offering. They will be a welcome addition to our archives

Please let me know what would be the best way for us to get these items. None of our board members live in NE Pennsylvania but one member will be traveling through Scranton the end of this month on his way to our Symposium in NJ

Thanks again for thinking of us

Hank Sweetman  
President  
DL&WRRHS  
615-406-6917

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**S. Robert Powell** <srp18407@gmail.com>

Sep 2,  
2022, 5:19  
PM

to Henry Sweetman

Have the DL&W Board member who will be passing through Scranton at the end of this month on his way to your Symposium contact me, and I can meet him and hand him the box of DL&W materials/papers.

S. Robert Powell  
[srp18407@gmail.com](mailto:srp18407@gmail.com)  
570-282-0385

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September 6, 2022: Don Liotta, from the DL&W Historical Society, picked up the box of DL&W materials at noon today.

71. Hudson Coal Dealers: C. N. Hodgdon Company, Berlin, NH, and Lawrence S. Risley, Oxford, NY. Dealers' cards, found in Carbondale Historical Society collection, September 10, 2022:



(Hodgdon, it's interesting to note, is the only dealer I have ever seen who advertised "Hudson Sterling Coal" for sale.)



## The D & H Heat Regulator *Brings You*



### *Living Room Control* **of Your Heater**

Here is an inexpensive device that's as simple to operate as saying your A B C's. Keeps room temperature uniform by automatic control of the dampers on your furnace. Ask us for details next time you order D & H Anthracite.

**Lawrence S. Risley**  
OXFORD, N. Y.  
Phone: 127



## Order **D & H Cone-Cleaned Anthracite**

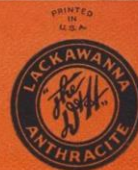
# *Now!*

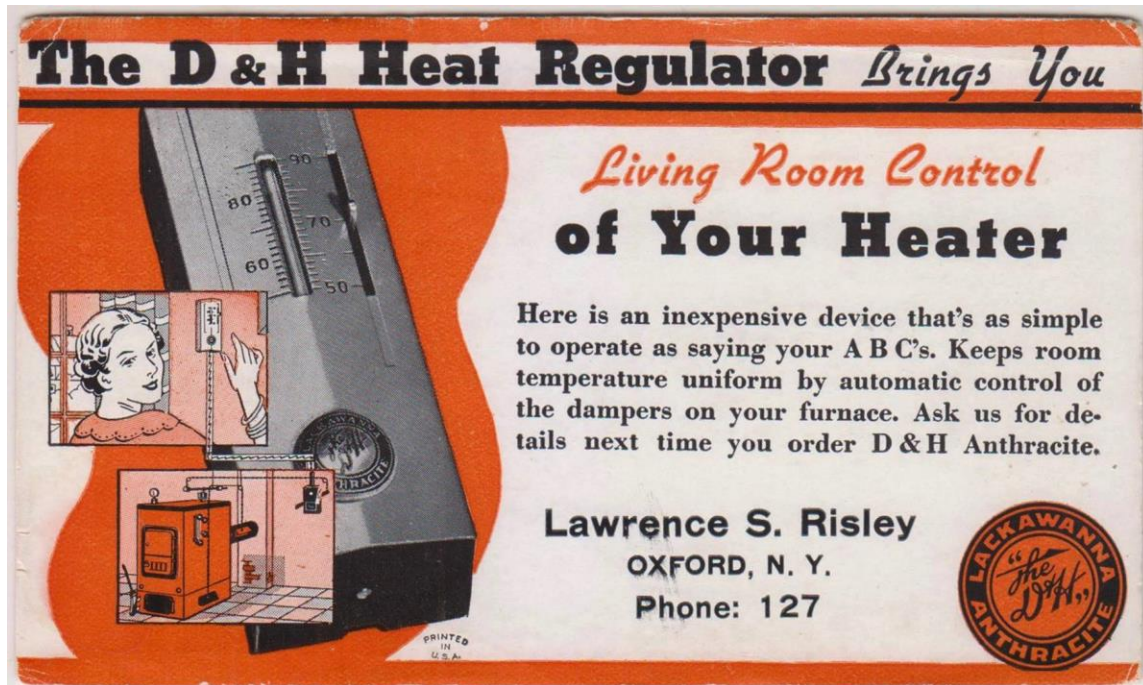


To obtain high quality coal...delivered promptly, cleanly, politely, and backed by a guarantee of heating satisfaction, call the number below and specify D & H Cone-Cleaned Anthracite...“the Solid Fuel for Solid Comfort.”

*Call*  
**127**

**LAWRENCE RISLEY**  
OXFORD, N. Y.





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Post in the Delaware and Hudson group on Facebook, September 11, 2022, by SRP: one of the Risley crds and one of the Hodgdon cards. In my comment (see below) I noted that Hodgdon offered "Hudson *Sterling* Coal" for sale.

## Silas Robert Powell:

Advertising / Trade cards from two D&H / Hudson Coal / Lackawanna Anthracite dealers: C. N. Hodgdon Company, 38 Main Street, Berlin, NH, and Lawrence S. Risley, Oxford, NY; both dealers (and hundreds more like them), marketed a product from the Lackawanna Valley in Northeastern Pennsylvania. The sales area for D&H coal, as we all know, was vast: towns and cities everywhere throughout the Northeast and into Canada, and up and down the Atlantic seaboard. The D&H mining and transportation is no more. It's hard to believe, but true. (Hodgdon, it's interesting to note, is the only dealer I have ever seen who advertised "Hudson *Sterling* Coal" for sale.)

**Michael Decker:** I have seen a few sterling Hudson coal items from a variety of dealers - I'm not sure what years they marketed "sterling" coal but I suspect 40's-50's. This sign is a favorite of mine. "The coal of sterling character" from Ward G. Ackerman Inc. in Altamont NY."



"The coal of sterling character" from Ward G. Ackerman Inc. in Altamont NY."

**Silas Robert Powell:** Thank you. Yes. Now I get it. The big coal companies, not surprisingly, were very proud of the coal they marketed: Top quality coal with very few (if any) impurities. And so, they borrowed the word "sterling" from the realm of silver ("Sterling" Silver) and coinage. Sterling silver has a fixed standard of purity usually defined legally as 925 parts of silver with 75 parts of copper, e.g., the British pound sterling, sterling silver tableware. During my growing up years (1940s and 1950s: those were the days!) my parents would say things like: "The sterling [excellent, first-class, superior] reputation of Peter Ashton will surely win him lots of votes on election day." And so it is not at all surprising that the coal companies and coal dealers would borrow and use the word "sterling" in marketing their "top quality, pure, and high grade" coal.

**Paul Strubeck:** The "Sterling" branding for Hudson Coal was kind of one of their last ditch efforts before they were bought out by competitor Glen Alden, aka Blue Coal, who marketed it for a few more years.

**Paul Strubeck Delaware and Hudson Railroad: 9 January 2015:** A small (well, big..) piece of the D&H hanging in my living room.

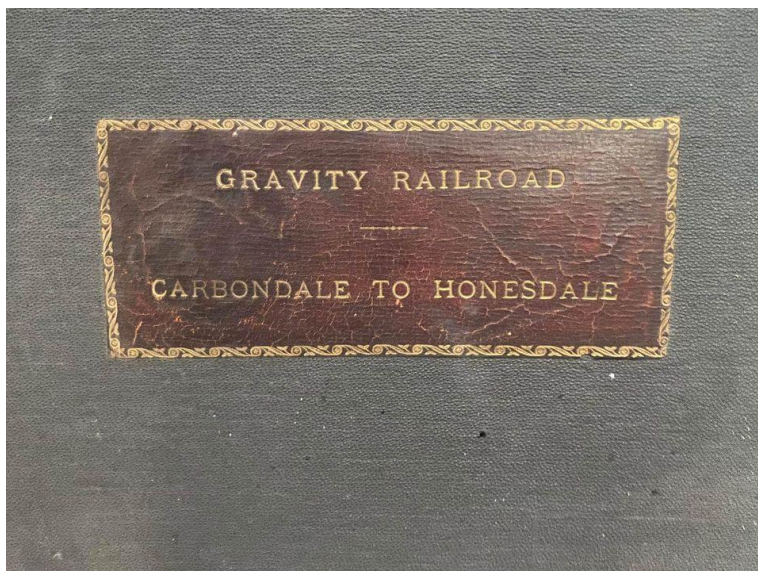


72. D&H Gravity Railroad, 1895 map volume, owned by dealer in Ballston Spa, NY, posted on Facebook, September 11, 2022:

**Carolyn Burke:** [Railroad Collectables buy sell](#) Ballston Spa, NY: “Not For Sale. Anybody know anything about this volume and it’s [sic] potential value?”

D&H Gravity Railroad map volume. “Gravity Railroad - Carbondale to Honesdale”. Not a narrative but a book of maps of the location of gravity RR in different townships. Book is 26” x33” and in good condition for its age.”

SRP: What a surprise. I was under the impression that the only copy of this volume in existence is the copy in the collection of the Lackawanna County Historical Society.



**Carter B Morris Sr.:** 1895. Maps drawn by W. E. Anderson

<https://archive.org/.../20%20The%20Honesdale%20Branch...>



These references to my D&H volumes appeared here when this post was made, and that pleases me a great deal.

**ARCHIVE.ORG**

Delaware and Hudson Railroad (24 e-Books): Dr. S. Robert Powell : Free Download, Borrow, and Streaming : Internet Archive

**Joseph Senese Sr.:** I was born in Carbondale and still live in the area. What's the story with this book? I think Dr. **Silas Robert Powell** would like this in the archives of the Carbondale Historical Society where the book would be at home and used for research.

**Silas Robert Powell:** Excellent book. I know it well. Very pleased to know that a second copy of this volume exists. If the copy shown here is ever looking for a new home, please contact the Carbondale Historical Society.

**Jason Smith:** Wow what a treasure, this book relates to the D&H Gravity and Canals. There is a gentleman who is the director of the Carbondale Historical Society and a Grand Historian on the Gravity Line and if you ever wanted to donate them to his Historical Society I am sure he would take them, I am a trustee for the Wayne County Historical Society and these also pertaining to us as well but he is the expert.

**S. Robert Powell** <srp18407@gmail.com>

Sun, Sep  
11, 4:00  
PM

to Jason Smith

Sunday, September 11, 2022

Jason:

Thanks for the reference/compliment in the Facebook item on the 1895 D&H Gravity Railroad map volume.

I know the volume well. There are hundreds of scans of the maps in that volume in my 24-volume series on the D&H. (For well over twenty years, I have had free access to a copy of that map volume in a collection in the Lackawanna Valley.) I could not have written all of my D&H volumes if had not been able to study this map volume.

Until I saw this Facebook post today on the map volume, I had the impression that there was only one copy of the map volume in existence. I'm very pleased to learn that there are at least two copies of the map volume.

If the vendor who is now trying to sell the map [Carolyn Burke Railroad Collectables buy sell Ballston Spa, NY] establishes a reasonable price, I will bid on the map. Her prices are always at least ten times higher than they should be, so I am not too optimistic about being the successful bidder on this volume.

If you see that she is offering this volume at a specific price, let me know, as I don't see her page regularly.

Thanks. / Robert

73. “*Delaware and Hudson Bulletin* Collection Donated to UAlbany Archives by Carbondale Historical Society” (*Bridge Line Historical Society Bulletin*, September 2021, pp. 16, 18):

## ***Delaware and Hudson Bulletin* Collection Donated to UAlbany Archives by Carbondale Historical Society**

By S. Robert Powell, Ph.D.

Every issue of the *Delaware and Hudson Bulletin* is filled with accurate data about the D&H and its employees that is not reported anywhere else by the D&H or in any other publication. As such, these *Delaware and Hudson Bulletins* are all documents of immense historical value.

Early 1921 is the starting date of the publication of the *Delaware and Hudson Company Bulletin*. An excellent account of the early history of the *Delaware and Hudson Company Bulletin* is given on page 2/inside front cover of the January 1, 1925 issue, as follows:

“Appreciating the desirability of placing before its employes information having to do with the Transportation Industry, the Management of The Delaware and Hudson Company started, early in 1921, the issuance of ‘THE BULLETIN’ which has since been known as our semi monthly employes’ publication. Except with one change in form, *The Bulletin* has continued as an eight-page paper up to the present time [1925]. Need for additional reading space and a volume of more convenient size has been apparent for some time and, in response to this demand, a larger *Bulletin* makes its debut with this issue. It will permit of a more diversified arrangement of topics and will merit continued interest.”

Only one issue of *The Bulletin* for the period 1921-1924 has come down to us, Volume 3, No. 23-24, December 1, 1923 (which was donated to the Carbondale Historical Society in the spring of 2009 by Pete Grant of Hampstead, NC). Over the years, as a consequence of an aggressive search and acquisition process directed by John V. Buberniak and S. Robert Powell, 224 additional issues of *The Bulletin* were added to the library of the Carbondale Historical Society and Museum.

In the period 1921-1924, *The Bulletin* was an 8-page (pages 8 ½” x 11”) monthly publication; page size was reduced to 6 7/8” X 10” beginning January 1, 1925, when *The Bulletin* became a semi monthly publication. Beginning with the February 15, 1925 issue (or possibly with the January 15 or February 1 issues in 1925, copies of which are not in the collection of the Carbondale Historical Society and Museum), *The Bulletin* became a 16-page publication. (The January 1, 1925 issue has 20 pages.)

Beginning with the May 1, 1930 issue, the name of this D&H publication was changed from “The Delaware and Hudson Company Bulletin” to “The Delaware and Hudson Railroad Bulletin.”

The latest/most recent copy of *The Delaware and Hudson Railroad Bulletin* in the collection of the Carbondale Historical Society is dated May 1, 1938. Was that the final issue? If there were issues published after that date, we can only hope that they will surface in the years ahead and that they will be preserved for the benefit of the historical record of the Delaware and Hudson Company.

On June 5, 2021, the original paper copies, plus electronic copies (searchable pdf files) of all 225 issues (3,942 pages) of *The Delaware and Hudson Railroad Bulletin* in the collection of the Carbondale Historical Society were donated to the Bridge Line Historical Society for inclusion in the UAlbany Archives. Here, for the record, are the publication dates of those 225 issues:

**1923** (12/1), **1925** (1/1, 2/15, 3/1, 3/15, 6/1, 6/15, 7/1, 8/1, 9/1, 9/15, 10/1, 11/1, 11/15, 12/1, 12/15), **1926** (1/1, 1/15, 2/1, 2/15, 3/1, 3/15, 4/15, 5/1, 5/15, 7/1, 7/15, 8/1, 8/15, 9/1, 11/1, 11/15, 12/1, 12/15), **1927** (1/1, 1/15, 2/1, 2/15, 3/1, 3/15, 4/1, 4/15, 5/1, 5/15, 6/1, 7/1, 7/15, 8/1, 8/15, 9/15, 10/1, 10/15, 11/1, 12/1), **1928** (1/1, 2/1, 2/15, 3/1, 3/15, 4/1, 4/15, 5/1, 5/15, 6/1, 6/15, 7/1, 7/15, 8/1, 9/1, 9/15, 10/15, 11/1, 11/15, 12/1, 12/15), **1929** (1/1, 2/15, 3/1, 3/15, 4/1, 4/15, 5/1, 5/15, 6/1, 6/15, 7/1, 7/15, 8/15, 9/1, 9/15, 10/1, 11/1, 11/15, 12/1, 12/15), **1930** (1/1, 1/15, 2/1, 2/15, 3/1, 3/15, 4/1, 4/15, 5/1, 5/15, 6/1, 6/15, 7/1, 7/15, 8/1, 8/15, 9/1, 9/15, 10/1, 10/15, 11/1, 11/15, 12/1, 12/15), **1931** (1/1, 1/15, 2/1, 2/15, 3/1, 3/15, 4/1, 4/15, 5/1, 5/15, 6/1, 6/15, 7/1, 7/15, 8/1, 8/15, 9/1, 9/9, 9/15, 10/1, 10/15, 11/1, 11/15, 12/1), **1932** (1/1, 1/15, 2/1, 2/15, 3/1, 3/15, 4/1, 4/15, 5/1, 5/15, 6/1, 6/15, 7/1, 7/15, 8/1, 9/1, 10/1, 11/1, 12/1), **1933** (1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12), **1934** (1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12), **1935** (1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12), **1936** (1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12), **1937** (1, 3, 4, 5, 6, 7, 8, 9, 11, 12), **1938** (1, 2, 3, 4, 5).

\* \* \* \* \*

*For the Record*  
**Delaware and Hudson Bulletin Collection Donated to UAlbany Archives**  
**by Carbondale Historical Society**  
*by S. Robert Powell, Ph.D.*

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4/1, 4/15, 5/1, 5/15, 6/1, 6/15, 7/1, 7/15, 8/1, 8/15, 9/1, 9/15, 10/1, 10/15, 11/1, 11/15, 12/1, 12/15  
**1931:** 1/1, 1/15, 2/1, 2/15, 3/1, 3/15, 4/1, 4/15, 5/1, 5/15, 6/1, 6/15, 7/1, 7/15, 8/1, 8/15, 9/1, 9/9, 9/15, 10/1, 10/15, 11/1, 11/15, 12/1  
**1932:** 1/1, 1/15, 2/1, 2/15, 3/1, 3/15, 4/1, 4/15, 5/1, 5/15, 6/1, 6/15, 7/1, 7/15, 8/1, 9/1, 10/1, 11/1, 12/1  
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**1938:** 1, 2, 3, 4, 5

#### Gravity RR photos

RE: Gravity Railroad photos on page 13 in the June 2021 **Bulletin**: "From Honesdale? From Carbondale?"

The D&H numbered the inclined planes and levels on its Gravity Railroad, starting with the first plane out of Carbondale.

*continued on page 18*

#### Page 17:

**Top:** D&H fire department building #11 in Carbondale, PA yard. D&H record photo on June 27, 1917. The building lasted until July 3, 1956, when it was removed. BLHS Archives scan by Mike Bischak. That's engine 34 pushing the wooden coal cars; the one at the top right has a rather unusual "wavy" logo, the type normally seen only on the cover of the D&H company **Bulletin**.

**Bottom:** Building #22 in the D&H's Carbondale yard was the D&H police department, located at North Main Street, Carbondale, PA. D&H record photo on August 31, 1917; BLHS Archives scan by Mike Bischak. That's a "Britishers Enlist Today" poster to the left of the front door, as "the great war" was underway at the time.

74. "Maps of D&H and Pennsylvania Coal Company Operations" (*Bridge Line Historical Society Bulletin*, November 2021, pp. 14-15):

## Maps of D&H and Pennsylvania Coal Company Operations

By S. Robert Powell, Ph.D.

Maps on which detailed and accurately portrayed data are presented are priceless documents to historians, and those among us who are interested in the history of the Delaware and Hudson Railroad, the D&H Canal from Honesdale to the Hudson River, and the Pennsylvania Coal Company's operations in northeastern Pennsylvania are indeed fortunate to be able to study and learn from some remarkable maps.

Here are the basic facts on the best maps of (1) the D&H Canal and Gravity Railroad, (2) the D&H steam lines in Lackawanna and Wayne Counties, Pennsylvania, and (3) the Pennsylvania Coal Company's Gravity Railroad in Luzerne, Lackawanna, and Wayne Counties, Pennsylvania.

**Delaware and Hudson Canal:** (1) D&H Canal Map volume owned by Exporail/Canadian Pacific: 109 maps, surveyed in 1854, maps drawn in 1856 by E. W. Weston, Honesdale, PA; revised in 1865. Electronic copies of this map volume are now in the collections of many members of the Delaware and Hudson Transportation Heritage Council, including the Carbondale Historical Society; (2) D&H Canal maps in three of the four D&H deed volumes in the collection of the Carbondale Historical Society: *Record of Deeds. New York Deeds to D. & H. C. Co. & Others*; *Record of Deeds. Pennsylvania Deeds Wayne, Pike & Susquehanna Counties to D. & H. C. Co. & Others*; *Record of Deeds: Pennsylvania Deeds Luzerne County to D. & H. C. Co. & Others*. Electronic copies of those maps are presented in Volume XXIII (pp. 505-665) of S. R. Powell's 27-volume *History of the Delaware and Hudson Canal Company*; (3) D. G. Beers, *Atlas of Wayne County Pennsylvania*, published by A. Pomeroy & Co., 1872; excellent maps of D&H Canal Basin and operations in Honesdale and the canal basin (D&H and PCC) in Hawley.

**Delaware and Hudson Gravity Railroad:** (1) *Map of the Village of Carbondale Luzerne Co. PA*, surveyed and published by P. Nunan in 1851. When the only impression of this map, 36" x 41", that is known to exist came into the collection of the Carbondale Historical Society it was "readable", even though it had been poorly laminated by a previous owner. This is the earliest known map on which the operations of the D&H Gravity Railroad in Carbondale are shown; (2) *Delaware and Hudson Canal Company. Gravity Railroad, Carbondale to Honesdale*, 1895 (scale is 200 feet to an inch; 18 plates, 30" x 21 1/4", drawn by W. E. Anderson, in the collection of the Lackawanna County Historical Society; (3) D. G. Beers, *Atlas of Luzerne County Pennsylvania*, published by A. Pomeroy & Co., Philadelphia, 1873. See especially the maps of Carbondale, Carbondale City, Fell Township, Blakely, Peckville, Archbald, Gibsonburg, Olyphant, Providence, and Scranton.

**Delaware and Hudson Canal Company (canal and railroad) in the Nineteenth Century:** Maps and descriptions of real estate in nineteenth century deeds: four D&H deed volumes, from the D&H office in Providence, PA, now in the collection of the Carbondale Historical Society. These are the only copies in existence of these four volumes. Three of those volumes contain deeds of real estate to the D. & H. C. Co. and one volume contains deeds of real estate from the D. & H. C. Co. Those four volumes are titled: (1) *Record of Deeds. New York Deeds to D. & H. C. Co. & Others*; (2) *Record of Deeds. Pennsylvania Deeds Wayne, Pike & Susquehanna Counties to D. & H. C. Co. & Others*; (3). *Record of Deeds: Pennsylvania Deeds Luzerne County to D. & H. C. Co. & Others*; (4). *Record of Deeds: Pennsylvania Deeds Luzerne and Lackawanna Counties from D. & H. C. Co.*

**Delaware and Hudson Canal Company's Railroad, Honesdale Branch, Carbondale to Honesdale,** March 1901; 23 map pages, 33" x 25", all drawn by W. E. Anderson. The only copy of this map volume that was produced is now in the collection of the Carbondale Historical Society. The 14 sidings on this rail line are named in the front matter in this volume and shown on the maps therein.

**Delaware and Hudson Steam Railroad in Carbondale:** (1) *Map of the City of Carbondale Lackawanna County Pennsylvania, 1909, From Actual Surveys By and Under the Direction of George William Tappan, Scranton, PA, October 18, 1909*; map pages are 22" x 14 ½, highly detailed maps of the Carbondale D&H Yard are given in this volume; (2) *D&H Main Line, Carbondale Yard, June 30, 1916*; (3) *Sanborn Map Co. Maps of Carbondale*, April 1930; 40 pages, 21" x 25", highly detailed map of D&H Yard on p. 24, included are detailed maps of D&H and NYO&W operations in Carbondale and Simpson.

**Delaware and Hudson Steam Railroad in Scranton:** (1) *Map of Providence and the City of Scranton from Atlas of Luzerne County Pennsylvania From Actual Surveys by and under the direction of D. G. Beers*, published by A. Pomeroy & Co., Philadelphia, PA 1873; (2) *City Atlas of Scranton, Pennsylvania*, G. M. Hopkins, C. E., Philadelphia, 1877; (3) *Sanborn Map Company's Insurance Map of Scranton, Pennsylvania*, April 1884 edition, also Volume III, 1956; (4) *Atlas of the City of Scranton and Borough of Dunmore*, published by L. J. Richards & Co., Philadelphia, PA, 1888, also 1899 edition, also 1918 edition by Volk & Kuehls; (5) *Atlas of the Wyoming and Lackawanna Valleys and Map of Luzerne and Lackawanna Counties, Penna. From Actual Surveys, Official Records and Private Plans*. Compiled and published by G. W. Baist, Topographical Engineer, 906 Walnut Street, Philadelphia, 1894; (6) *City of Scranton and Borough of Dunmore, Pennsylvania*, 1898; (7) *Scranton Pennsylvania, including Dunmore*, published by Sanborn-Perris Map Co., NYC, NY, 1898; (8) *Atlas of the City of Scranton and Borough of Dunmore, Lackawanna County, Pennsylvania*, Volk & Kuehls, Philadelphia, 1918.

**Pennsylvania Coal Company Gravity Railroad:** (1) *Map of Hawley, PA, 1860*, by M. S. & E. Converse, Publishers, Philadelphia. Copy in the archives of the Wayne County Historical Society. This is the earliest known map on which the operations in Hawley of the Pennsylvania Coal

Company's Gravity Railroad are shown in detail; (2) Pennsylvania Coal Company map volume, containing 95 maps, 25" x 17", scale 1 inch = 200 feet, maps dated 1866, with data 1850-1897. Original paper copy of this volume, formerly in the collection of Louis DeNaples, is now in the collection of the Dunmore Historical Society. Electronic copies of this map volume (the 95 pages were each professionally photographed and the negatives were then professionally scanned) are now in the collections of many regional historical societies, including the Carbondale Historical Society; (3) D. G. Beers *Atlas of Luzerne County Pennsylvania*, A. Pomeroy & Co., Philadelphia, 1873: excellent maps of the PCC loaded and light tracks through present-day Luzerne and Lackawanna Counties, see especially the following maps: Jenkins and Plains Townships, Pittston, Jefferson Township, Pleasant Valley, Roaring Brook Township, and Dunmore; (4) *D. G. Beers, Atlas of Wayne County Pennsylvania*, published by A. Pomeroy & Co., 1872; excellent maps of PCC Canal Basin and operations in Hawley.

For detailed history of the PCC Gravity Railroad, see (1) *"The Gravity" History of The Pennsylvania Coal Company [Gravity] Railroad 1850-1885* by Mary Theresa "T. C." Connolly, 1972, and (2) seven volumes of S. R. Powell's *History of the Delaware and Hudson Canal Company*: IV, 576-597; XIV, 208-226; XVII, 618-662; XVIII, 347-348, 425-426; XXIII, 373-393; Volume XXIV, 367-390; and XXV, 224-315, 386-388, 395-399.

**Delaware and Hudson Railroad: Right of Way and Track Map of Honesdale Branch from Carbondale to Honesdale, 1900-1931;** 29 images, dated 1916. These maps are included in the PCC map volume referenced above. Electronic copies of this map are now in the collections of many regional historical societies, including the Carbondale Historical Society.

Such, then, are the basic facts on the best maps, in our humble opinion, of (1) the D&H Canal and Gravity Railroad, (2) the D&H steam lines in Lackawanna and Wayne Counties, Pennsylvania, and (3) the Pennsylvania Coal Company's Gravity Railroad in Luzerne, Lackawanna, and Wayne Counties, Pennsylvania.

\* \* \* \* \*

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- 1) The D&H Canal and Gravity Railroad;
- 2) The D&H steam lines in Lackawanna and Wayne Counties, Pennsylvania; and,
- 3) The Pennsylvania Coal Company's Gravity Railroad in Luzerne, Lackawanna, and Wayne Counties, Pennsylvania.

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### **Delaware and Hudson Canal Company (canal and railroad) in the Nineteenth Century**

Maps and descriptions of real estate in nineteenth century deeds: four D&H deed volumes, from the D&H office in Providence, PA, now in the collection of the Carbondale Historical Society. These are the only copies in existence of these four volumes. Three of those volumes contain deeds of real estate to the D. & H. C. Co., and one volume contains deeds of real estate from the D. & H. C. Co. Those four volumes are titled:

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### **Delaware and Hudson Canal Company's Railroad, Honesdale Branch, Carbondale to Honesdale**

March 1901: 23 map pages, 33 in. x 25 in., all drawn by W.E. Anderson. The only copy of this map volume that was produced is now in the collection of the Carbondale Historical Society. The 14 sidings on this rail line are named in the front matter in this volume and shown on the maps therein.

### **Delaware and Hudson Steam Railroad in Carbondale**

1) "Map of the City of Carbondale Lackawanna County Pennsylvania, 1909, From Actual Surveys By and Under the Direction of George William Tappan, Scranton, PA, October 18, 1909". Map pages are 22 in. x 14-½ in.; highly detailed maps of the Carbondale D&H Yard are given in this volume.

2) "D&H Main Line, Carbondale Yard, June 30, 1916; (3) Sanborn Map Co. Maps of Carbondale", April 1930. 40 pages, 21 in. x 25 in., highly detailed map of D&H Yard on p. 24. Included are detailed maps of D&H and NYO&W operations in Carbondale and Simpson.

### **Delaware and Hudson Steam Railroad in Scranton**

1) "Map of Providence and the City of Scranton from Atlas of Luzerne County Pennsylvania From Actual Surveys by and under the direction of D.G. Beers", published by A. Pomeroy & Co., Philadelphia, PA 1873.

2) "City Atlas of Scranton, Pennsylvania, G.M. Hopkins, C.E., Philadelphia, 1877.

3) "Sanborn Map Company's Insurance Map of Scranton, Pennsylvania", April 1884 edition, also Volume III, 1956.

4) "Atlas of the City of Scranton and Borough of Dunmore", published by L.J. Richards & Co., Philadelphia, PA, 1888, also 1899 edition, also 1918 edition by Volk & Kuehls.

5) "Atlas of the Wyoming and Lackawanna Valleys and Map of Luzerne and  
*continued on page 15*

by **Doug Barron**

15

75. World War I patriotic/fund raising initiatives; Cody Gonsauls/SRP conversation, September 24, 2022:



We learned today from Cody Gonsauls, a life member of the Carbondale Historical Society, that the photograph shown above was taken in 1917 as the United States entered World War I. Events such as this flag raising photo at the Powderly Breaker in Carbondale were taken by the railroads to generate popular support for the war and to help sell bonds.

In Cody's personal collection, there is a "flag raising" photograph that was taken on May 19, 1917, at the NYO&W Mayfield power house/round house. Here is that photo:

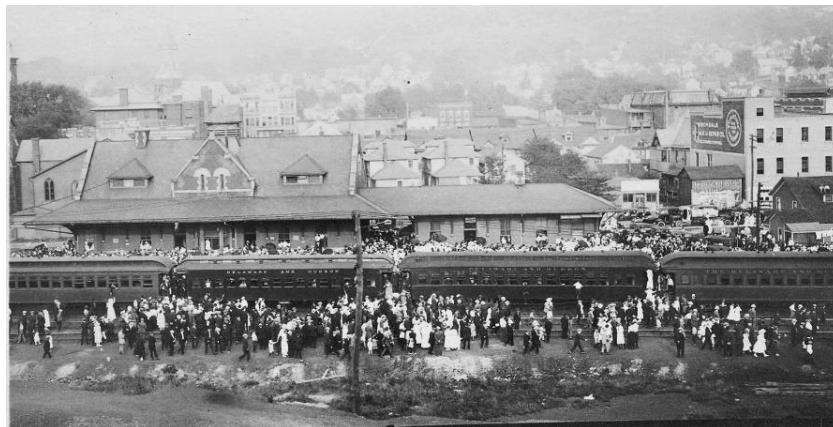
Caption: "Flag Raising, N. Y. O. and W. Ry., Motive Power Dept., Mayfield Yard, May 19, 1917"



Flag Raising, N. Y. O. and W. Ry. Motive Power Dept., Mayfield Yard, May 19, 1917

On September 25, 2022, Cody reported: "After I sent those photos to you I did more looking. I was able to find that all around the country towns and cities did flag raisings for the United States going to war. Though we declared for the war in April, many places did not do the ceremonies until May/June. This was largely because of a flag shortage at the time. Also to mention, the flags were quite impressive in size according to the articles I found."

On September 25, 2022, S. R. Powell reported to Cory Gonsauls that in addition to the Powderly Breaker flag raising photo there are four other remarkable World War I photos in the collection of the Carbondale Historical Society: two World War I departure of troops from Carbondale photos, and two of the World War I Victory Arch across North Main Street; also a very nice photo of the Carbondale Victory Arch that was erected across Main Street at the conclusion of the Spanish American War. Here are those five photos:



Departure of Troops from Carbondale's D&H Station for Service in World War 1



Departure of Troops from Carbondale's D&H Station for Service in World War I



World War I Victory Arch across North Main Street (in the summer)



World War I Victory Arch across North Main Street (in the winter)



Victory Arch that was erected across Main Street, Carbondale, at the conclusion of the Spanish American War

In Cody's collection there is also a "flag unveiling" photo that was taken at the DL&W Hampton Engine House and which may or may not be a World War I "flag raising" photo. Here is that photo:



Caption: "W. I. Ross Photo Co., Main Office, 1409 Monsey Ave., Scranton, PA / Flag Unveiling at the DL&W Hampton Engine House"

In looking around on the Internet, we learned that "Hampton Yard was the DL&W's primary yard for classification of anthracite coal traffic, and was in the northwest part of Scranton, north of Taylor Yard, along Keyser Creek. The yard stretched from Luzerne Street to Oak Street, and had a rider hump, where brakemen would ride a car off the hump into the classification tracks, braking the car with their brake sticks. Tom Taber's book *The Lackawanna Railroad in the 20th Century* has a good write up about Hampton Yard and the Lackawanna's anthracite operations."

Given the fact that a large railroad turntable and roundhouse can be seen behind the railroad workers and the band that are seen in the foreground of this photograph, it may well be that the subject of this photograph is the new roundhouse and not a World War I flag raising ceremony, even though there is a very large flagpole in the center of the photograph.

-----  
**DL&W question:** Is this Hampton yard photograph a flag-raising photo or a rail yard/turntable dedication photo?

On September 26, 2022, via the DL&W Historical Society webpage, I mentioned to Henry Sweetman (president of the DL&W Historical Society) that I had seen a photo of what appears to be the dedication of the Hampton Yard Round House, and asked him if the year in which the roundhouse at Hampton Yard was built was known. Given below is his reply.

Inbox

H

**Henry Sweetman**

7:4  
6  
PM

to me  
September 27, 2022

Hello Silas

Thanks for contacting us with your question. The first roundhouse at Hampton Yard was built in 1911. This was replaced by a larger structure in 1929. The picture could be from either of these years. The Steamtown National Historic Site in Scranton could possibly provide more information.

Thanks

Hank Sweetman  
-----

**S. Robert Powell** <srp18407@gmail.com>

8:4  
1  
PM

to Henry Sweetman

September 27, 2022

Dear Hank:

Thanks for the fast response to my question about the Hampton Yard.

A copy of the photograph in question is attached (note the two "captions" in white ink on the photo), one of which reads: "Flag Unveiling at the Hampton Engine House". My guess is that the roundhouse in this photo is the 1929 roundhouse. If so, the photo was probably taken in 1929.

What do you think? Is that a reasonable assumption?

Best,

Robert  
-----

Henry Sweetman

Tue, Sep  
27, 9:31  
PM

Hello Robert

I would say that based on the dress of the participants that 1929 would be a reasonable assumption.

Thanks

Hank Sweetman

-----

World War I flag raising ceremony or unveiling ceremony at a new roundhouse? The jury is still out.

76. Belden Hill Tunnel, photo posted on October 4, 2022, in the D&H Group on Facebook by Mike Moss.

[Mike Moss](#) :CP/D&H train 555 exits the east portal of Belden Hill tunnel with CP RS18u #1850 in the lead. Tunnel, NY 5/94:



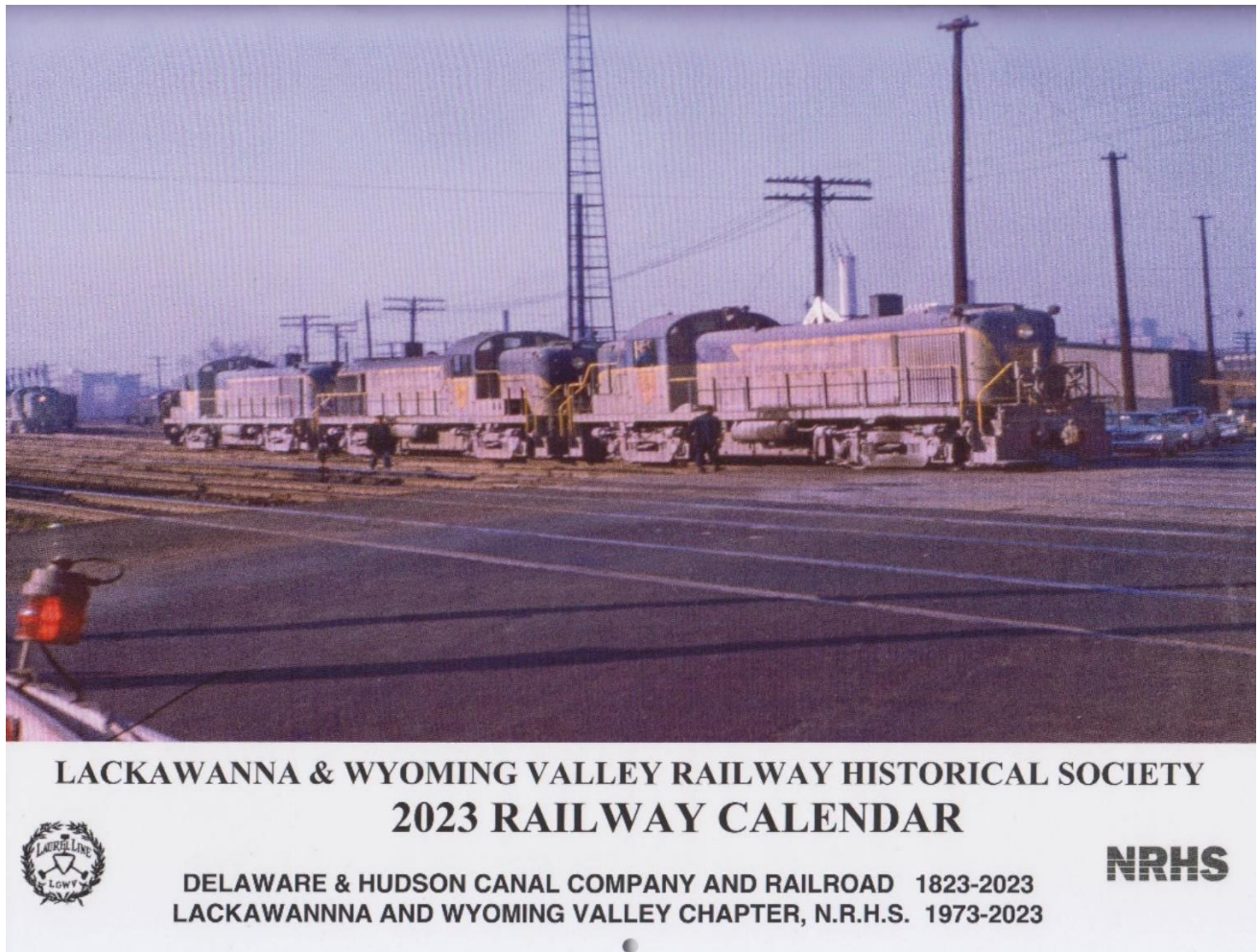
77. Carbondale Mine Fire photo, in the collection of Cody Gonsauls, Childs, PA. Photo made available for presentation here on October 4, 2022:



78. “The First Underground Mine Opened in Carbondale –June 1831”postal cachet; in the collection of Cody Gonsauls, and made available for presentation here on October 4, 2022:



79. *Lackawanna & Wyoming Valley Railway Historical Society and Delaware and Hudson Railroad 2023 Calendar*: Front cover: D&H: caption at the head of the text on the following page:



200<sup>th</sup> anniversary of the incorporation of the Delaware and Hudson Railroad.

50<sup>th</sup> anniversary of the L&WVR chapter of the National Railroad Historical Society.

Text by L&WVRHS:

### The Cover

Delaware & Hudson RS-3's No 4075 and two unidentified sisters prepare to cross the Scott Street crossing in Wilkes-Barre in this mid 1960's photo. Downtown Wilkes-Barre was the location of freight facilities of the Lehigh Valley, the Delaware & Hudson, and the Central Railroad of New Jersey, mostly parallel to each other. A Lehigh Valley train is visible on the overpass on Scott Street in the background. The D&H did a great deal of interchange with the CNJ and the LV in downtown Wilkes-Barre. In January 1973 the Lehigh Valley and D&H built a connection in Dupont which made possible run-through traffic and eliminated switching and congestion at grade crossings in downtown Wilkes-Barre.

The Delaware & Hudson Railroad began life as the Delaware & Hudson Canal Company in 1823. The goal of the company was to build a canal to connect the anthracite coal fields around Carbondale, PA to New York City. The company received a charter to build a canal in Pennsylvania in March, 1823 and in New York a month later. Surveys showed the best routes and construction began in 1825. The canal ran from near Kingston on the Hudson River to the Delaware River near Port Jervis, NY, then along the Delaware to Lackawaxen, PA, and along the Lackawaxen River to Honesdale, PA. Initial plans were to extend the canal west over the Moosic mountains and then descend to Carbondale. The excessive costs of such building convinced the company to consider a railroad instead of a canal. By 1829 the railroad was operational, ending the use of wagons which had been used to move coal from Carbondale to Honesdale.

The gravity railroad operation resembled part of a roller coaster. Cars were pulled to the top of an incline or plane, using a stationary steam engine which pulled the cars using ropes or cables. On a roller coaster, when the cars reach the top, they continue down the grade generating enough speed to climb the next grade. On the gravity the cars are allowed to coast downhill on a slightly graded track called a level until they stop. The distance between the top of the plane and the end of the level was a few thousand feet to several miles. This is how the gravity railroad covered distance. At the end of the level another cable was attached, and the cars are pulled to the top of the next incline and uncoupled. The process was repeated until the end of the line was reached. Trains traveling to Carbondale from Honesdale used four planes with levels to reach the top of Moosic Mountain. The climb from Carbondale to the top of the mountain required five planes. From Carbondale down to Honesdale were three planes. In early years the line was single track with loaded and light or empty cars sharing the same line, with passing sidings at key locations. As traffic increased it became necessary to construct a separate track for loaded and empty cars. Until the Gravity ceased operations in 1898, numerous improvements were made to make the line more efficient. In 1858 the D&H extended the line from Carbondale to Archbald, and in 1860 to Providence, now part of Scranton. A key difference was that this new addition to Providence was a conventional steam railroad rather than a gravity one.

Most expansion now used steam locomotives. The D&H made a deal with the Erie Railroad to construct a steam railroad from Carbondale north to Lanesboro, PA to connect with the Erie mainline near Susquehanna. The railroad expanded as far south as the Wilkes-Barre area to reach mines in the Lackawanna and Wyoming Valleys. The D&H continued to expand north by acquiring the Albany and Susquehanna to reach Albany and several smaller lines to reach the Canadian border.

The D&H continued its prosperity into the 20th century, but by the 1930's changes began. People found that gas and oil were more convenient to use than anthracite, and no longer used hard coal for heating and cooking. The need to dig deeper mines to reach coal for mining made production more expensive and helped reduce demand. By the end of World War II in 1945 all the anthracite carriers began to suffer a drop in business and other financial problems. The D&H tried to compensate by marketing itself as a "bridge line", connecting the Canadian and New England railroads in the north and various railroads in southern New York and Pennsylvania. For many years this strategy seemed to work, but the D&H's main problem was the general decline in railroad business and poor financial condition of the railroads with which it connected. The mergers of the 1960's reduced the number of connecting railroads, but in some instances the merged railroads eliminated any use of even part of the D&H to move freight. By the 1970's the D&H was a moderately successful line in the middle of bankrupt or financially weak railroads. By 1973, to rescue the D&H neighbors, Congress created Conrail to consolidate these lines, provide them with financial assistance to upgrade facilities, and abandon lines that were no longer profitable.

The D&H did not qualify for the same degree of financial assistance, and was required to operate over Conrail lines to reach friendly lines such as NW and Chessie in the Midwest and SCL and Southern in the South. The difficulties this caused produced a brief affiliation with the Maine Central and Boston & Maine - Guilford - but this forced the D&H into bankruptcy in 1988. Temporary operation by the NYS&W during bankruptcy led to purchase by Canadian Pacific in 1991. CP continued operations of the D&H until it sold the portion from Sunbury to Schenectady to Norfolk Southern in 2015. NS still operates this portion of the line today.

2023 marks the 200th anniversary of the creation of the D&H. It evolved from a canal company and gravity railroad to a conventional railroad propelled by steam to a diesel powered line. It changed its purpose from mining and hauling anthracite coal in the Lackawanna & Wyoming Valleys of Pennsylvania to a bridge line interchanging with neighboring rail lines to a minimal competitor to Conrail. The Lackawanna & Wyoming Valley Chapter is proud to celebrate the 200th anniversary of D&H

John Rakowski photo, Tony Verbyla Sr. collection

L&WVR calendar pages: February, April, June, August, October, and December

D&H calendar pages: January, March, May, July, September, November, and 2 bonus pages

### L&WVR Historical Society 2023 Railway Calendar

The Lackawanna & Wyoming Valley Railway Historical Society 2023 Railway calendar is an historically important—and beautiful—document that commemorates the 50th anniversary of the Lackawanna and Wyoming Valley Railway Historical Society (chartered by the National Railway Historical Society on November 11, 1973) and the 200th anniversary of the Delaware and Hudson Canal Company (chartered by the Commonwealth of Pennsylvania on April 23, 1823).

Six of the monthly photos are L&WVR photos (February, April, June, August, October, and December), six of the photos are D&H photos (January, March, May, July, September, and November, plus 2 bonus pages). Nine of those photos are color photographs, and three are original black and white photographs. Five bonus photographs are presented following the monthly pages (2 color and 1 black and white L&WVR photographs, 1 color and 1 black and white D&H photographs). The quality of all of these photographs is very high, as is the paper on which they are printed.

Throughout the calendar, important events in the history of the L&WVR, the D&H, railroads in America in general, as well as important events in local, regional, and American history are noted on individual days. The subject of the full-page caption on the photograph on the front cover of the calendar (a D&H photo by John Rakowski, in the collection of Tony Verbyla, Sr., of the Wilkes-Barre yard in the mid 1960s) is the 200th anniversary of the D&H. The twelve monthly calendar photos and the five bonus photos at the end of the calendar are from the collections of Norman Barrett, the L&WVRHS, the Carbondale Historical Society and Museum, Jim Kilcullen, Edward S. Miller (12 photos), and Carl Packer.

The history of the Lackawanna & Wyoming Valley Chapter of the National Railway Historical Society is presented following the December calendar page, and following all of the bonus photographs at end of the calendar.

Copies of this L&WVR and D&H calendar are now available. To obtain a copy, go to the L&WVR website [www.lwvrhs.org](http://www.lwvrhs.org) or contact the L&WVR, at Post Office Box 3452, Scranton, PA 18505-0452.

(The article given above on the 2023 calendar was published in the December 2022 issue of the *BLHS Bulletin* on p. 4.)

\* \* \* \* \*

January



Delaware & Hudson C628 No.613, Lehigh Valley No. 638, and an unidentified LV unit approach Bowman Street Crossing at BS Cabin in Dickson City in this May,1972 photo. The train has just passed the Marvine Breaker, visible at the left rear of the train, one of the largest breakers served by the D&H. The train is NE-84, a run through service which connected with the Reading to reach Philadelphia and southern railroads, and via Lehigh Valley and D&H to reach the Boston & Maine and connections in New England. Because of the various lines connected - the B&O, RDG, LV, D&H, AND B&M - the route was sometimes referred to as the alphabet route. After the Lehigh Valley became part of Conrail in 1976, the D&H gained trackage rights to reach Potomac Yard in Alexandria, Virginia via Philadelphia and Baltimore to maintain connections with the B&O/C&O and to open direct connections with RF&P and NS.

Norman Barrett Collection

## March



Delaware and Hudson Gravity Railroad at Plane No. 23 in Olyphant, on the Loaded Track. Also known as "G" plane, this is the track on the left that ascends the hill. At the top can be seen the smokestack of the stationary steam engine that powered the plane. The upper portion of this plane is present-day Gravity Avenue. Two strings of loaded cars are at the base of this plane, ready for shipment to Honesdale. The tracks at the center right are the end of Plane No. 22 on the light track (empty cars being returned to Olyphant from Honesdale). The Eddy Creek Breaker is on the right. Two tracks from the breaker come down a short distance and then connect with the D&H Gravity tracks at the junction of the loaded and light tracks. At the foot of Plane No. 23, the D&H Gravity Railroad also connected with the Valley Road (a steam locomotive line to Providence, and points south). Photo taken in 1860 by the Scranton photographer, Thomas H. Johnson. Photo in the collection of the Carbondale Historical Society and Museum).

Collection of Carbondale Historical Society and Museum

The L&WV calendar team rewrote my caption, given below, and made two serious errors: see the underlined portion of my caption as submitted. The two errors: (1) In this photo can be seen the junction of Planes Nos. 22 and 23 at Olyphant; and (2) In the third line of their caption, they say "center right" and it should read "center left"

Caption as submitted by SRP: Junction, at Olyphant, of the Loaded and Light Tracks on the Delaware and Hudson Gravity Railroad. Photo taken in 1860 by the Scranton photographer, Thomas H. Johnson. Plane No 23, on the Loaded Track, also known as "G" plane, is the plane on the left, that ascends the hill, at the top of which can be seen the smokestack of the stationary steam engine that powered the plane. The upper portion of this plane is present-day Gravity Avenue. Two strings of loaded cars are at the base of this plane, ready for shipment to Honesdale. The tracks at the center left are the end of Plane No. 22 on the light track (empty cars being returned to Olyphant from Honesdale). The Eddy Creek Breaker is on the right. Two tracks from the breaker come down from the breaker a short distance and then connect up with the D&H Gravity tracks at the junction of the loaded and light tracks. At the foot of Plane No. 23, the D&H Gravity Railroad also connected with the Valley Road (a D&H steam locomotive line to Providence, and points South). Photo in the collection of the Carbondale Historical Society and Museum).

May



Various pieces of equipment appear in the Delaware & Hudson Yard outside the Freight House on Wyoming Avenue in Scranton in this May 8, 1973 photo. The occasion was the celebration of the D&H 150<sup>th</sup> anniversary during that year. From left to right are a replica of the Stourbridge Lion, the first steam locomotive to operate anywhere in the United States in 1828 in Honesdale, a specially painted D&H boxcar, several passenger cars which contained exhibits, and a bay window caboose. To the right are the Alco PA locomotives which pulled the special train across the D&H system. Today this trackage and facilities are property of the Pennsylvania Northeast Regional Railroad Authority.

Edward S. Miller photo, L&WVRHS collection

July



Delaware & Hudson Railroad GP-38-2's Nos. 7325, 7319, GP-39-2 No. 7406 and an unidentified GP-39-2 and U23B pull this 89 car train WR-7 northbound leaving Scranton in this October, 1978 photo. The train is operating as a detour on the Conrail line that was the former Lackawanna Railroad mainline later used by the Erie Lackawanna. The D&H purchased this line from Conrail in 1980 and eventually downgraded the former Penn Division line that ran through the Lackawanna Valley and Carbondale and over Ararat Mountain. D&H sold that line in the Lackawanna Valley to the Lackawanna County Railroad Authority and abandoned everything north of Carbondale. The D&H eventually fell victim to financial problems and became part of Guilford Transportation. Following bankruptcy the line became property of Canadian Pacific. In 2015 CP sold the line between Sunbury and Schenectady to Norfolk Southern which operates it today.

Jim Kilcullen Photo

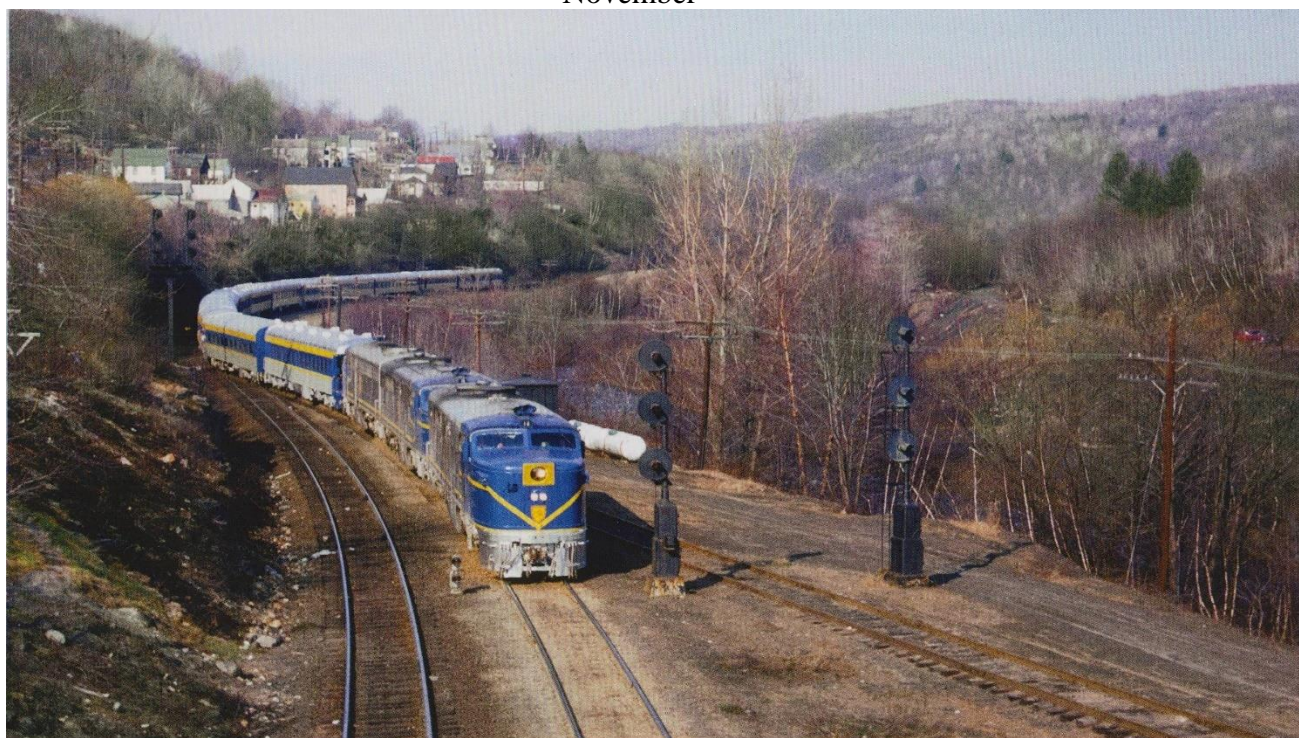
September



Delaware & Hudson 2-8-0 No. 1216, class E-62 built by Alco, leads a string of hopper cars through Carbondale Yard in this September 29, 1952 photo. Carbondale was the collection point for all the D&H coal traffic from Hudson Coal Company and other mines in the Lackawanna Valley and the Wyoming Valley. By the late 1930's this traffic was decreasing, and the D&H had to change its freight model to that of a "bridge line", transporting freight between connecting railroads such as the Erie, the Lackawanna and New England routes in the north, and the Lehigh Valley, the Central Railroad of New Jersey and the Pennsylvania in the south.

Edward S. Miller photo, L&WVRHS collection

November



Delaware & Hudson PA-1's Nos. 18,19, and 17 pull a Penn Division Special train into the north end of Carbondale Yard in this April 21, 1974 photo. The train and others like it were common on the D&H in the mid 1970's when the railroad was celebrating its prominence as a profitable railroad operating in the midst of its bankrupt neighbors. The PA's were former Santa Fe passenger units repainted into a D&H paint scheme substituting D&H blue for the Santa Fe red. The locomotives served for a time as power on the D&H *Laurentian*, a passenger train that served between Albany, NY and Montreal. Changes in the D&H fortunes in the late 1970 saw the PA's sold. This section of railroad was eventually abandoned and removed.

Edward S. Miller photo

## Bonus Page



Delaware & Hudson U-23-B No. 2304 and two unidentified sisters lead northbound train BS-1 across the recently upgraded former CNJ track between MJ Cabin and Taylor Yard in this 1980 photo. This was the first D&H freight to operate using this segment which linked the former D&H Penn Division with the recently acquired ex-DL&W mainline between Taylor Yard and Binghamton. A southbound freight waits on the Penn Division for the northbound to pass. For many years this track enabled Central Railroad of New Jersey trains to cross the Lackawanna River to reach their own tracks in Taylor Yard and Scranton. There was also a connecting track which extended to the old DL&W Taylor Yard. The D&H sometimes used the line as a detour move between Binghamton and Taylor. After the D&H acquired this track from Conrail, they downgraded and abandoned the old Penn Division north of Carbondale, eventually selling it to the Lackawanna County Railroad Authority. Today Norfolk Southern trains use these rails.

Jim Kilcullen photo

## Bonus Page



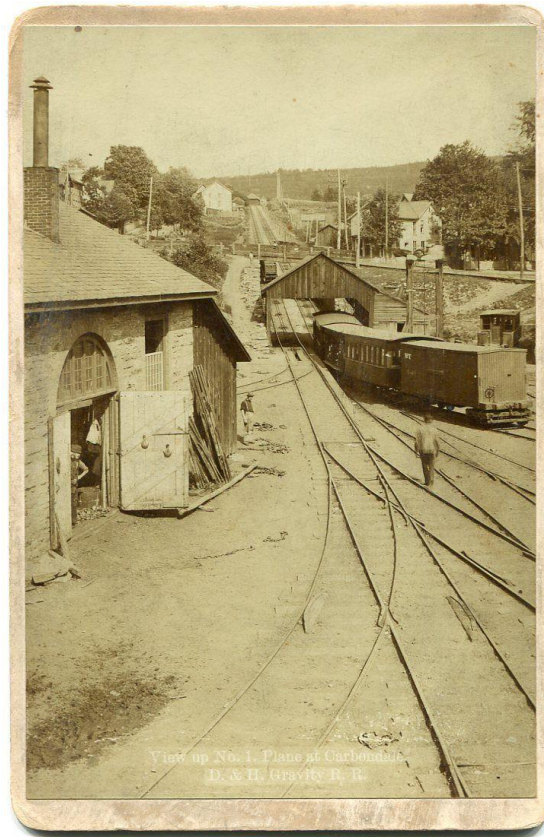
Delaware & Hudson No. 1063 heads north past Lookout Junction south of Carbondale in this late 1940's photo. The locomotive is passing the location where the Honesdale Branch connected with the D&H main line. The Honesdale branch replaced the light track of the gravity between Carbondale and Honesdale. The train will continue to Carbondale yard where cars will be set off to be included in trains along with other freight.

Samuel Pennypacker photo, Carl Packer collection

### 80. Gravity Railroad Day, 2022:

Posted on Facebook on October 9, 2022, in the Delaware and Hudson Facebook page at 9 AM; got 20 “likes” in the first hour; over 120 “likes” overnight.

## October 9, 2022: D&H Gravity Railroad Day



**D&H Gravity Railroad:** On Friday, October 9, 1829 (193 years ago today), the Delaware and Hudson Canal Company's Gravity Railroad from Carbondale to Honesdale opened. The importance of this event and of this railroad in American history can not be overstated. The anthracite coal mined in the Lackawanna and Wyoming Valleys of Pennsylvania and shipped to market over this Gravity Railroad made possible the industrialization of America in the nineteenth century. Shown in this photograph by Ludolph Hensel is Plane No. 1 on the D&H Gravity Railroad. This photograph was taken in the parking area behind the present-day Ben-Mar Restaurant (formerly D&H Division Office).

(Posted by SRP in the Delaware and Hudson page on Facebook on October 9, 2022)

**George Hofmann:** Very interesting. Look closely at the track turnouts. Amazing.

**Jeff Linskens:** My dad was from Carbondale and he told me about these things. At the time I didn't listen much. But he was correct about all of it

**Michael Riley:** Amazing history. Thanks!

**Chris Murphy:** You compiled that multi-CD collection of D&H history, correct?

**Silas Robert Powell:** Yes, 24 volumes in the period 2014-2018; plus an "addendum" volume" in 2018, 2019, 2020, and 2011 of previously unpublished D&H material. The addendum volume for 2022 will be published this December.

**George Berard:** Thank you for sharing!

**Greg Flynn:** Do you have any idea when the stone building on the left in the photo was demolished? I distinctly remember it still standing as recently as the early/mid '80's. This photo has been published multiple times, and the various sources have identified it as the gravity car shop.

**Silas Robert Powell:** The stone building shown here at the left of the Gravity tracks was the D&H Blacksmith Shop (not the Car Shop). From its inception in 1975, the Carbondale Historical Society worked actively for the preservation of the Gravity Shops. In 1979, the Historical Society took the steps necessary to have the entire Gravity Shops area listed in the National Register of Historic Places. Members of the Historical Society then met with representatives of Steamtown National Historic Site, with Congressman Joseph McDade, and with the Pennsylvania Historic Museum Commission and asked for help in purchasing and preserving these important buildings. No assistance was available from any of those sources. Regrettably, a despicable Carbondale philistine purchased the entire Gravity Shops area at that time. On August 25, 1987, during Carbondale's week-long Pioneer Days celebration that year, the philistine in question bulldozed/demolished all of the D&H Gravity Shops buildings. A parking lot now occupies the site.



**Greg Flynn:** thank you for filling in the blank spots for me. I remember walking through the remains in the mid/late 80's, and it seemed that enough remained of the original construction to warrant some manner of preservation. I've passed by the Plane 1 site several times since, but never had enough time to go "rooting around".

81. D&H Station and Water Tower, Waymart, PA, April 19, 1917 (photo on page 17, *BLHS Bulletin*, October 2022), "Thomas Dickson: D&H Empire Builder, and Gentleman Part 2):



Waymart, Pa.  
April 19, 1917  
Courtesy: Bridge Line  
Historical Society

D&H Passenger and Freight Station, Honesdale Branch, Waymart, PA, April 19, 1917. D&H "Valuation" photo, BLHS Archives, scan by Mike Bischak. (Valuation Section 2C, #204, Sta. 551 + 62.2)



D&H Water Tower at Waymart Station, Honesdale Branch, Waymart, PA, April 19, 1917. D&H "Valuation" photo, BLHS Archives, scan by Mike Bischak. (Valuation Section 2C, #204, Sta. 551 + 62.2)

## 82. Conglomerate rock in the northern coal field of Pennsylvania:

### **What is Conglomerate Rock and where is it found?**

Conglomerate rock, which is found throughout D&H territory in northeastern Pennsylvania and southeastern New York, was used by the D&H throughout the transportation system that it constructed between the anthracite coal fields of the Lackawanna and Wyoming Valleys in northeastern Pennsylvania and the Hudson River.

Conglomerate rock is found only in areas where water once flowed or where glaciers were found, as in the area of the anthracite coal fields of northeastern Pennsylvania and in the Shawangunk Ridge, also known as the Shawangunk Mountains, in Ulster County, Sullivan County and Orange County in southeastern New York, where, during the Pleistocene Epoch, commonly called the Ice Conglomerate Age (which began about 2.6 million years ago and lasted until about 11,700 years ago), huge glaciers were found.

Conglomerate is an extremely hard rock that is very resistant to physical and chemical breakdown relative to surrounding rocks, with most conglomerate having a hardness rating of 8 (diamonds are rated 10). It is a coarse-grained clastic sedimentary rock that is composed of a substantial fraction of rounded to subangular, gravel-sized clasts (granules, pebbles, cobbles, boulders, larger than 2 mm. in diameter). The rounded clasts of conglomerate can be mineral particles, such as quartz or feldspar, or they can be sedimentary, metamorphic, or igneous rock fragments. The clasts are held together/cemented by a matrix of silica, calcite, or iron oxide.

Outcroppings of conglomerate rock are common in northeastern Pennsylvania and southeastern New York. On the top of the Moosic Mountain, above Carbondale, in the vicinity of Plane No. 7 on the D&H Gravity Railroad (1859 configuration), for example, there is a huge outcropping of conglomerate rock (that appears to contain a very high percentage of quartz) that was quarried by the D&H.

In the vicinity of Shepherd's Crook on the D&H Gravity Railroad, on the west flank of the Moosic Mountains just southeast of No. 10 Falls on the Lackawanna River, a series of waterfalls descends the mountain, in what is sometimes called the Panther Bluff Creek Gorge, in a continuous series of rock pavements and cliffs, starting at an elevation of about 1,750 feet and extending down to the level of the Lackawanna River at about 1,200 feet. These falls are over ledges of Pottsville sandstone and conglomerate. Of the numerous waterfalls, the highest and most picturesque is the 100-foot high Panther Falls.”(*Upper Lackawanna Watershed Conservation Management Plan, Final Report*, January, 2002, Chapter 1, Introduction & Background, pp. 32-33).

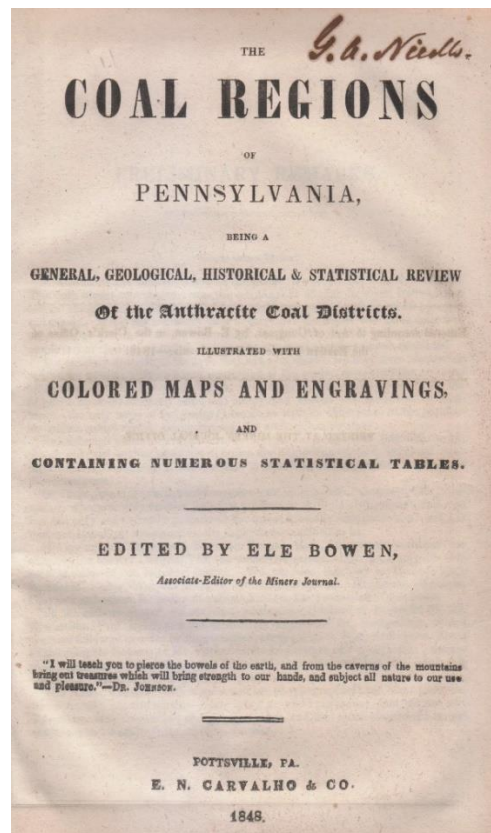
Outcroppings of conglomerate rock are also numerous near the western base of the Shawangunk Mountains in the valley of the Rondout River in New York, where a long, high ridge rises west of the Hudson River and extends, from near High Falls, southwestward between the Rondout and the

Wallkill Valleys, past Port Jervis and into the Delaware Water Gap of Pennsylvania and New Jersey. The ridge runs southwest as far as Virginia.

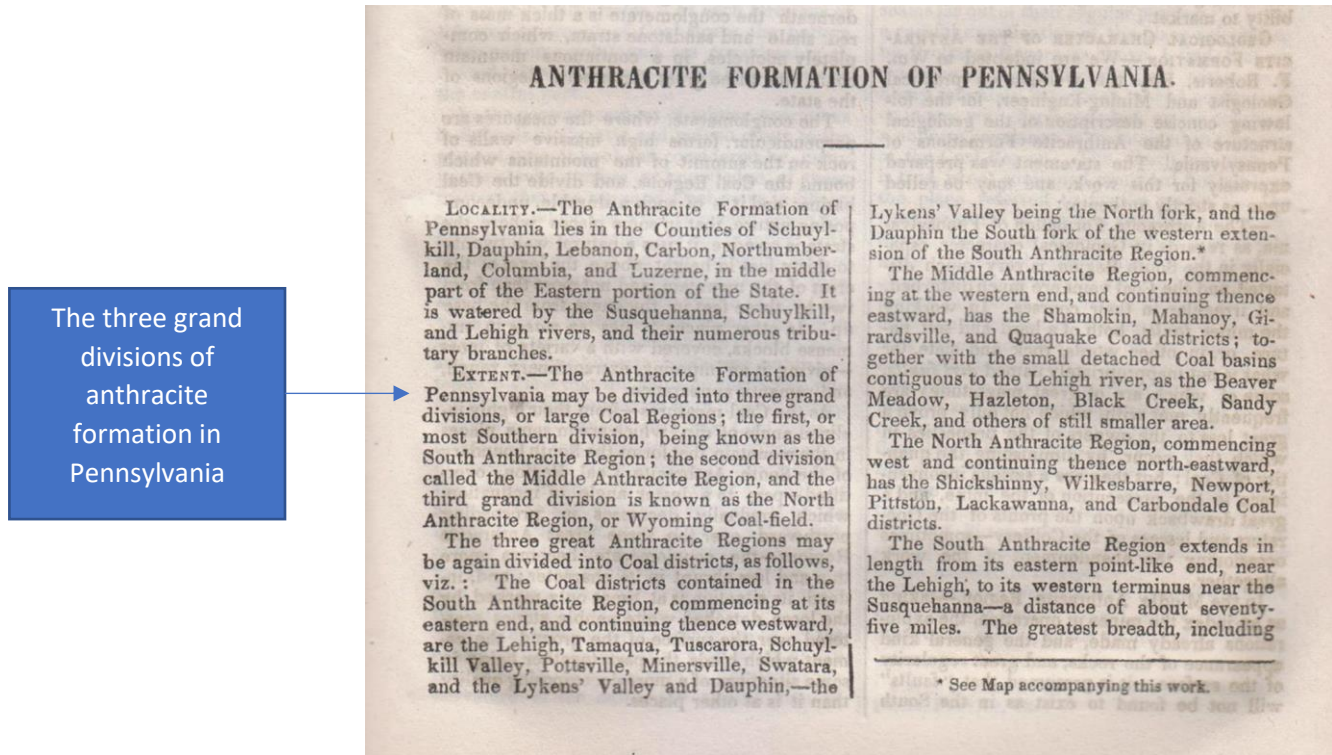
### **Conglomerate Rock and Anthracite Coal:**

In a conversation that we had in October 2008 with Bernadette Slick, a realtor in Forest City, PA, with a passion for collecting Pennsylvania rocks and minerals, Ms. Slick remarked: “The anthracite coal fields of northeastern Pennsylvania were underlaid with conglomerate rock. When the miners ran into conglomerate rock, they knew that they were at the bottom of the coal beds.” That remarkable observation is seconded by *Miller and Sharpless*, wherein, on page 8, we read: “Philip Ginter, an immigrant miller, who served the farmers of the Mahoning Valley, on a day in 1791 was searching for the conglomerate rock consisting of quartz embedded in siliceous cement that made the best millstones. Coincidentally, it also formed the base of all anthracite beds. [emphasis added].”

The fact that conglomerate rock formed the base of all anthracite coal beds in Pennsylvania is also presented in the volume whose title page is shown below:



A copy of this very rare volume was donated to the Carbondale Historical Society on October 31, 2022, by David W. Maxey, Galdwyne, PA. Therein, we learn that the anthracite formation of Pennsylvania is divided into three large coal regions:



D&H coal and railroad operations were centered in the North Anthracite Region, in which are located the Shickshinny, Wilkesbarre, Newport, Pittston, Lackawanna, and Carbondale Coal districts.

The fact that the anthracite coal beds of Pennsylvania are underlaid with conglomerate rock is underlined in this volume, on page 12, as follows:

In the North Region the general character of the strata is undulating, and comparatively flat to what it is found in the South or Middle Regions. The Coal veins, which are those of the bottom part of the formation, are generally of great thickness, and of good quality,—but in quantity there is not that average amount per acre of coal as is found in the other great Regions. This may be accounted for from the slightly undulating arrangement of the strata, and from the waters of the North Branch of the Susquehanna River, which flow through the central part of the Coal Valley, having changed its course from time to time, and swept or washed away much of the Coal,—leaving in places sand and gravel banks that cover considerable area of surface. The great Wyoming flats indicate the change which has taken place in the course of the River.

The basis of the Anthracite formation of Pennsylvania is a conglomerate rock, consisting of white quartz pebbles of various sizes, imbedded in a strong siliceous cement; underneath the conglomerate is a thick mass of red shale and sandstone strata, which completely encircles, in a continuous mountain chain, the three great Anthracite Regions of the state.

The conglomerate, where the measures are perpendicular, forms high massive walls of rock on the summit of the mountains which bound the Coal Regions, and divide the Coal basins; and it is of such a durable, undecomposing nature, that in some places where the strata is on edge, it rises a natural wall twenty to thirty feet in height above the level of the crest of the mountain, and not more than from two to three feet in thickness from the base up. In other places it lies *en masse* in immense blocks, covered with a variety of moss—giving it an imposing, extraordinary rough, and romantic appearance.

As the Coal measures—from their highly inclined angle of dip, which are in some places in the mountain that forms the South boundary of the South Anthracite Coal Region, overtilted—pass to a lesser angle of inclination, which gradually decreases in proceeding northward over the three great Anthracite Regions—the conglomerate becomes more thin and less abrupt in its character; and, indeed, its situation is at times only marked by the loose detached white pebble stones scattered over the surface of the ground, the cement which binds the parts together being in some situations of a more decomposing quality than it is at other places.

The basis of the Anthracite formation of Pennsylvania is a conglomerate rock, consisting of white quartz pebbles of various sizes, imbedded in a strong siliceous cement; underneath the conglomerate is a thick mass of red shale and sandstone strata, which completely encircles, in a continuous mountain chain, the three great Anthracite Regions of the state.....

### 83. Panther Creek Nature Preserve:

The entire Panther Creek area—the creek itself and about 50 feet on both sides of the creek, comprising 7.6 acres—from the Lackawanna River to the top of the mountain, Panther Bluff—as well as the section around Shepherd's Crook and the switchback area are owned today by the Michael J. Yavorosky family of Hop Bottom.

On Friday, June 19, 2009, the Yavorosky property in the area around Panther Creek was dedicated as the first Private Wild Plant Sanctuary in Pennsylvania by the Pennsylvania Department of Conservation and Natural Resources.

There is an article in the Fall 2009 issue of *Keystone WILD!* on this dedication. From that article we learn that the Private Wild Plant Sanctuary program was established through the Wild Resource Conservation Act of 1982, to establish a voluntary statewide network of native plant sanctuaries on private lands. Here is a photograph that was taken by the author at that dedication ceremony:



Dedication of Panther Creek Nature Preserve, June 19, 2009. Michael and Barbara Yavorosky, center; their grandson, Luke, far left; DCNR officials, on the right. Photo by S. R. Powell.

In the course of a telephone conversation on October 21, 2013 with Michael Yavorosky, we learned that

- Michael Yavorosky purchased in July 2012 the roadbed of the light track from No. 7 Road down to Shepherd's Crook, a distance of 5,800 feet. The land purchased is from 66 feet to 99 feet wide. The Pilney family owns the land on both sides of this long and narrow piece of land purchased by Yavorosky.
- the 28-acre parcel at the crook (first a 24-acre parcel, then an additional 4-acre parcel) was previously purchased by Yavorosky from Louis DeNaples
- the chain of title on the parcel at the crook: purchased, in the 1930s, by the Twin Hills Coal Company, the parcel later becoming the property of Louis DeNaples.

These falls on Panther Creek were photographed by Hensel and are included in the stereocard series of the ride over the D&H Gravity Railroad. In all contemporary nineteenth-century newspaper accounts about these various falls on the creek just a short distance north of Shepherd's Crook, the creek in question is named Panther's Creek. (That creek, it can be argued, should properly be referred to as Panther Creek. See the following paragraph.) Regrettably, the photos by Hensel of Panther's Creek are identified on the printed labels on the back of those stereocards as being of falls on Painter's Creek. Here is what must have taken place: Hensel's field notes were mis-read by the person who set the type for the printed stereocard labels. Panther's was read, erroneously, to be Painter's. In this volume and in all volumes in this series, when we refer to these falls, we will give their location as being on Panther Creek.

In addition, the high cliff at the summit of the mountain where the Panther Creek begins its descent of the mountain, through a series of waterfalls, is correctly named, we learn from Wade E. Taylor, *Panther Bluff*. Taylor makes this point in his article titled "Route of Empty Cars, Passenger Trains from Farview to C'Dale Traced by Railroad Veteran" (*Carbondale News*, March 15, 1962, p. 7). We agree with Taylor. It should be called *Panther Bluff*, just as the creek that descends the mountain from Panther Bluff to the Lackawanna River should be called *Panther Creek*. Consider the following place names: Elk Mountain, Elk Lake, Bear Creek, Hawk Mountain, for example. Yes, it should be called *Panther Bluff*. To refer to that high cliff above the Lackawanna River as *Panther's Bluff* or to refer to the creek that descends the mountain from that bluff as *Panther's Creek* is an example of hypercorrection (over-application of a perceived rule of grammar based on a desire to be correct; the erroneous use of a word form based on a false-analogy with a correct form).

### **Recapitulation:**

It's *Panther Bluff*, not *Panther's Bluffs* or *Panther's* or *Panthers* or *Panners*.

Similarly, it's *Panther Creek*, not *Painter's Creek*.

The numbers and names for the views of the Panther Creek area in Hensel's series are as follows:

1154, 1155: *Views up the Gorge at Shephard's Crook*

1156: *Picnic Ground above Painter's Creek Falls, Shepard's Crook.*

1157: *Manville Falls on Painter's Creek, seen from above.*

1158: *Manville Falls on Painter's Creek, seen from below.*

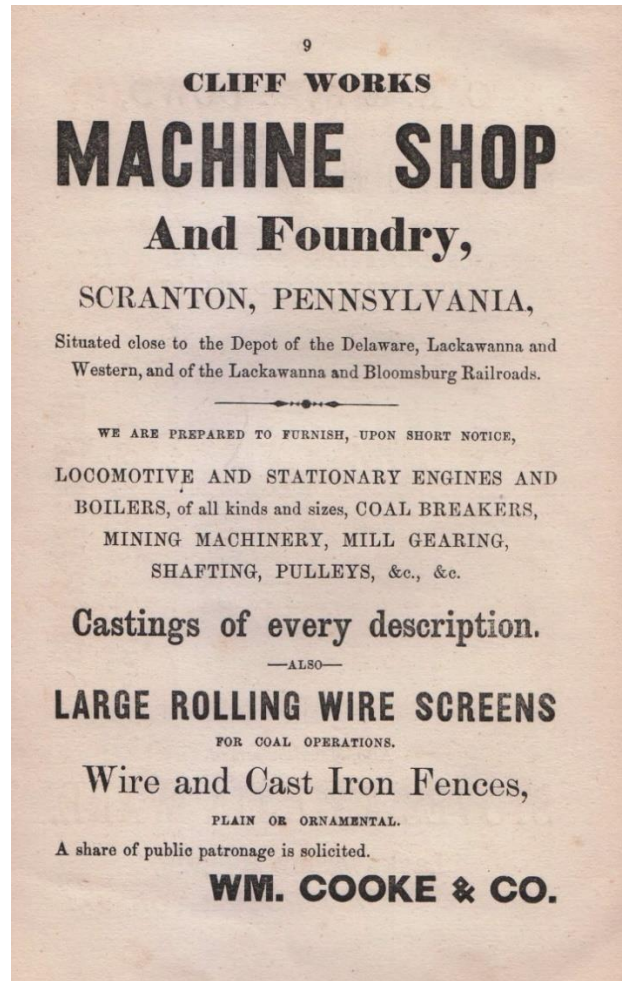
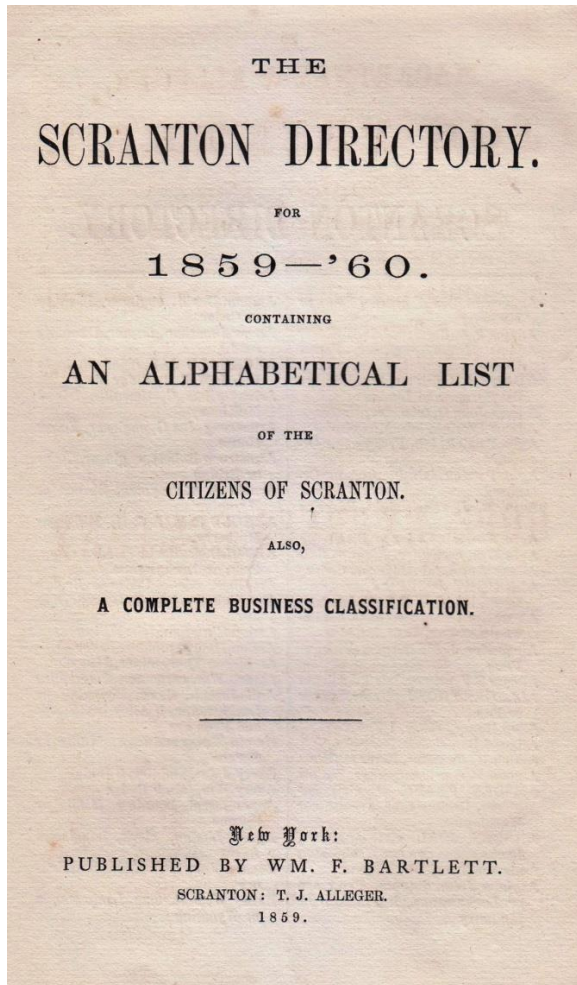
1159, 1160: *Van Bergen Falls on Painter's Creek*

1161, 1162: *Devil's Slide on Painter's Creek*

1163: *Wilbur Falls, seen from the Gravity Road.*

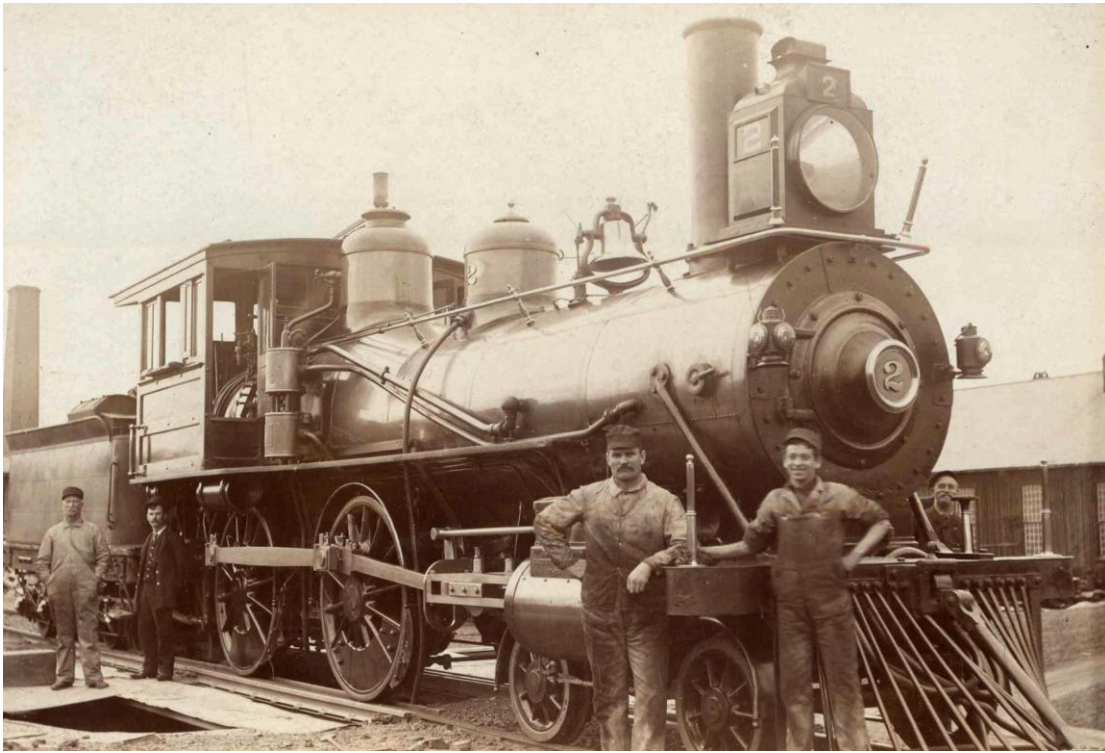
84. Wm. Cooke & Co., Scranton /Cliff Works MACHINE SHOP And Foundry:

Title page and page 9 of *The Scranton Directory for 1859---'60*.



(A copy of this very rare *Scranton Directory for 1859-1860* was donated to the Carbondale Historical Society and Museum by David W. Maxey, Gladwyne, PA 19035 on October 31, 2022.)

SRP posted on Facebook on the Delaware and Hudson page the following photograph + caption given below of the C. P. Wurts, and the full-page ad on page 9 for the Cliff Works Machine Shops and Foundry / WM. COOKE & CO. in the *1859-1860 Scranton Directory*:



**Gravity-gauge Steam Locomotives:** The D&H had five of them. Shown here is the C. P. Wurts (photo in the Clift collection at the Carbondale Historical Society). The other four were the *Major Sykes*, the *Honesdale*, the *Lackawanna*, and the *I. N. Seymour*. Three of those locomotives (*Major Sykes*, *C. P. Wurts*, and *Honesdale*) were made by Wm. Cooke & Co., Cliff Works Machine Shop and Foundry, Scranton, PA.

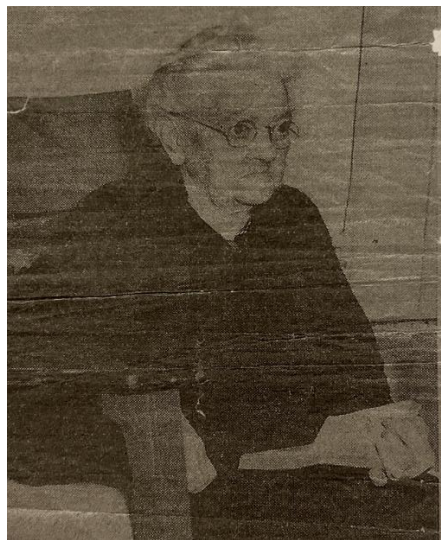
35 “Likes” in 24 hours

**Mark H. Charles** commented: “Fascinating! Is this a different Cooke from the locomotive builder in Paterson, NJ?”

Reply by **Silas Robert Powell**: I'm not sure. Wm. Cooke & Co. in Scranton were active in 1859-1860, and perhaps after that time. Danforth, Cooke & Co. were active in Patterson from 1853-1926. For more information on this question, see Robert A. Lowe's excellent article on the West Point Foundry (“When New York Was America's Locomotive Building Capital”) that was published in the September 2016 issue of the *Bridge Line Historical Society Bulletin* (pp.22-23, 46).

85. Mrs. Sarah Gunsauls Walker and the First Gravity Train around Shepherd's Crook in 1869:

"To provide for the additional tonnage expected upon the completion of the railroad about to be constructed from Green Ridge to Union Junction further alterations and improvements in the Gravity railroad were commenced in 1866. These improvements, which were of considerable extent, consisted of enlargement of the dock facilities and dumping ground, alteration of plane No. 13 at Honesdale and the construction of a new light car track from Farview down the west side of the mountain to Carbondale, a distance of six miles, on which the cars moved by gravity, eliminating the use of two ascending and eight descending planes. This work was continued through 1867 and completed in the following year, the new track being opened for the movement of light cars on April 21, 1868. [emphasis added] For the greater part of its length this track wound in and out among the hills, along precipitous cliffs and through ravines and little valleys. Curving to the left from the light track at the foot of return plane No. 8 it ran southwesterly to No. 4 reservoir where it curved to the right and ran northerly and, crossing over the loaded track near the head of No. 5 plane, continued for some distance. Then, after a cut into the side of the mountain, an abrupt turn or loop was made on a huge embankment and the track continued in a southerly direction, recrossing the loaded track at the head of No. 2 plane [the light track crossed the loaded just above the foot of Plane No. 3], to Carbondale. This loop, known as Shepherds Crook, was about four hundred feet in diameter and two thousand feet in length, and with a grade of one hundred and ten feet to the mile the track returned at the lower end of the loop to within eighty-two feet of itself, horizontally, thirty-seven feet below its upper end. These alterations, with the exception of some minor changes, were the last made on the Gravity railroad." (*Century of Progress*, p. 201)



Sarah Gunsauls Walker (daughter of Olive Porter and Benjamin Gunsauls, married William Walker) was a member of the first party, in 1869, that rode in a Gravity Railroad train through Shepherd's Crook.

The light track through Shepherd's Crook was completed in 1868. The D&H, in all probability, did not have a passenger car that could be run over the line until the following year, 1869, at which time

Mrs. Gunsauls and a group of passengers surely rode down the mountain through Shepherd's Crook to become "the first party that rode the old Gravity train around Shepherd's Crook, Panther's Bluff..."

On Thursday morning, April 5, 1877, the first regularly scheduled Gravity railroad passenger car left Carbondale for Honesdale. The fare was 80 cents.

## Woman, Who Was First On Train, at 87th Year

CARBONDALE, Jan. 4.—Mrs. Sarah Gunsauls Walker, who was a member of the first party that rode in the old Gravity train around Shepherd's Crook, Panther's Bluff, in 1869, celebrated her 87th birthday at her home, 361 Park Street, yesterday.

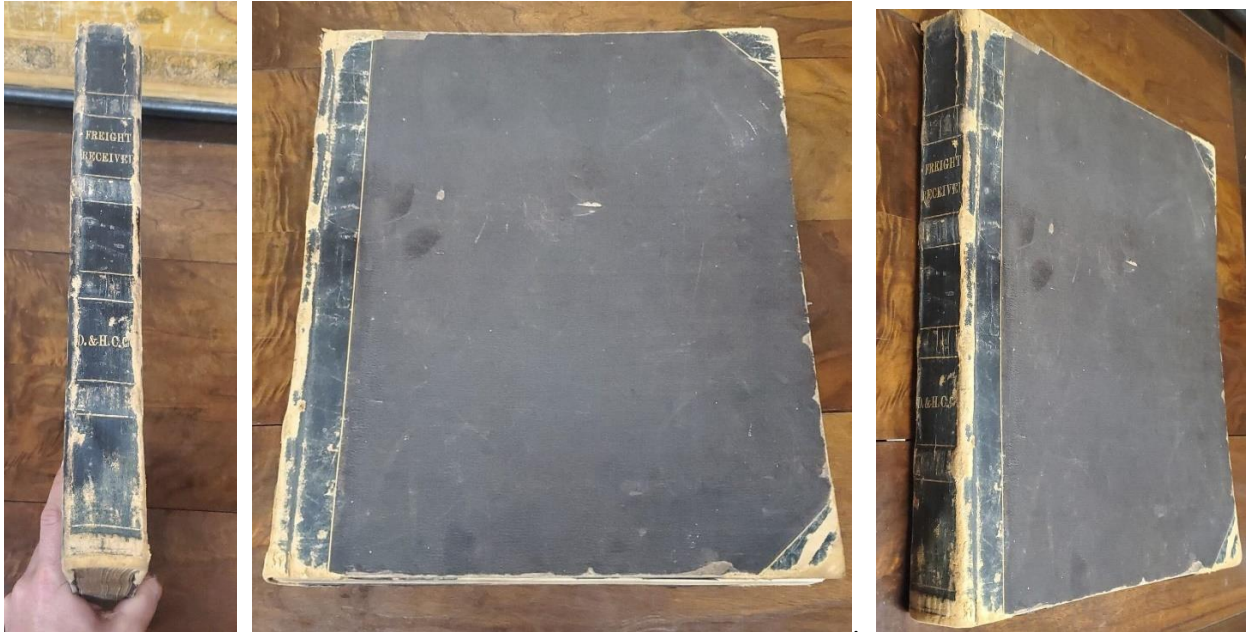
Mrs. Walker was the youngest daughter of Olive Porter and Benjamin Gunsauls, formerly of Waymart. Her sister, Mrs. Fannie Buckland, will celebrate her 97th birthday at the home of her daughter, Mrs. Pearl Jones, Forest City, July 26. Mrs. Walker's husband was the late William Walker, a former barber here. She has four daughters, Mrs. James Turner, Mrs. Harry Dilts, Mrs. William Sweet and Mrs. Edith Tregaskie, and two brothers, Philo Gunsauls, Scranton, and John Gunsauls, California.

### Two Lines of Descent from Benjamin Gunsauls and Olive Porter to Cody Gonsauls:

Cody Gonsauls, Childs, PA, is a descendant of Sarah Gunsauls, who married William Walker. Their daughter Roberta married (1) William Lloyd and (2) William Sweet. Audrey Sweet, daughter of Roberta and William Sweet, married Louis Gonsauls Sr., whose son, Louis Gonsauls Jr., married Maryann Gonsauls. Louis and Maryann Gonsauls are the parents of Cody Gonsauls.

Sarah Gunsauls had a brother Emmett, and through Emmett and his descendants (Roy Gunsauls, Louis Gunsauls, Sr., Louis Gunsauls, Jr., and Cody Gunsauls) Cody can also trace his Gunsauls ancestry, back to Benjamin Gunsauls and Olive Porter, who were the parents of both Sarah and Emmett Gunsauls.

86. Central Bridge, NY, *D&H Ledger 1877, Freight Received*; now (November 2022) in the collection of Cody Gunsauls, Childs, PA:



Imprinted on the spine of this volume: **FREIGHT RECEIVED / D. & H. C. Co.**

Column heads on each page in the ledger:

### Delaware & Hudson Canal Company

**FREIGHT RECEIVED AT \_\_\_\_\_ STATION, \_\_\_\_\_ 18\_\_\_\_**

Date, Way-Billed From, For Whom, Destination, Description of Articles, Weight, Price, Charges (Pre-Paid, Local, Back), No. and Description of Cars

Delaware & Hudson Canal Company.									
FREIGHT RECEIVED AT <i>General Bridge</i> STATION, <i>June 7<sup>th</sup></i> 18 <i>77</i>									
DATE	WAY-BILLED FROM	FOR WHOM	DESTINATION	DESCRIPTION OF ARTICLES	WEIGHT	PRICE	CHARGES		
							PRE-PAID	LOCAL	BACK
<i>June 5</i>	<i>Albany</i>	<i>J. A. Mistry</i>	<i>Scho</i>	<i>1 Bbl N. O. Lard</i>					
				<i>1 Box No. 1 Ware</i>					
				<i>1 Bbl Zinc</i>		<i>70</i>		<i>50</i>	
		<i>J. Kroun</i>	<i>"</i>	<i>2 Bags Long Corn</i>					
				<i>5 " Fine Meal</i>					
				<i>30 " Beans "</i>					
				<i>1 " Rye Flour</i>					
				<i>1 " White Corn</i>					
				<i>2 " S. Meal "</i>					
				<i>2 " Amt. Fuel</i>	<i>5400</i>	<i>12</i>	<i>1108</i>		
				<i>5 Hk Ch Tea</i>					
				<i>1 Box Seeds</i>					
				<i>2 " Pops</i>	<i>575</i>	<i>22</i>		<i>115</i>	
				<i>1 " Starch</i>					
				<i>1 " Soap</i>					
				<i>1 " Vinegar</i>					
				<i>20 Quarts Paper</i>					
				<i>1 Bbl Lard</i>	<i>250</i>	<i>18</i>		<i>45</i>	
				<i>2 Bags Coffee</i>					
				<i>2 Bbls Sugar</i>					
				<i>1 Box "</i>	<i>585</i>	<i>14</i>		<i>75</i>	

87. "Thomas Dickson, D&H Empire Builder and Gentleman (Part 1)" by S. Robert Powell. This article was published in the September 2022 issue (pp 16-19) of the *Bridge Line Historical Society Bulletin*:

## Thomas Dickson, D&H Empire Builder and Gentleman (Part 1)

By S. Robert Powell, Ph.D.

In 1836, James and Elizabeth (Linen) Dickson of Berwickshire, Scotland, and their six children, came to Carbondale, where James Dickson entered the service of the Delaware and Hudson Canal Company as a machinist (named master mechanic following resignation of John H. McAlpine, and served as such until his death in 1880). In 1837, their son Thomas, age 13, got a job as a mule driver (working under George A. Whiting, who was then in charge of the D&H horses and mules) at the "sweep" (a lifting device) that was used to lift coal out of the D&H mine at Carbondale. Thirty-two years later he was elected President of the Delaware and Hudson Canal Company. Let's take a look now at the path that he followed to that high office.

Following his work as a mule driver, he worked in various commercial enterprises until 1852, when he purchased an interest in the foundry and machine shops of Joseph Benjamin & Co. in Carbondale. In 1856, together with his father, brothers, and friends, he established, in Scranton, the firm of Dickson & Co. (manufacturers of mining machinery and steam locomotives), which, when reorganized in 1862, became the Dickson Manufacturing Company, with Thomas Dickson as president and sole manager. The principal customer of the company was the Delaware and Hudson Canal Company. (In 1857, Dickson & Co. made 16 stationary steam engines, of 75 horse power each, for the D&H.) On January 1, 1860, Thomas Dickson stepped down as president of the Dickson Manufacturing Company, and his brother George became president.

In 1860, Thomas Dickson was appointed Superintendent of the D&H Coal Department, at an annual salary of \$4,000. Immediately, he set about acquiring coal lands, especially those on the east side of the Susquehanna River, extending north from Nanticoke to the Pennsylvania Coal Company property near Wilkes-Barre. In 1864, he was promoted to the newly created office of General Superintendent of the Delaware and Hudson Canal Company. As such, he was in charge of all operations from the Lackawanna Valley to Rondout, including mining, the railroad, the canal, and the telegraph departments.

The D&H mining-transportation-marketing system—from the coal fields of northeastern Pennsylvania to the Hudson River—was then a fully mature and very profitable industrial enterprise. In 1864, the D&H shipped 852,130 tons of coal to market. The 1866-1868 revisions to the Gravity Railroad resulted in significant increases in shipments of coal. In 1868, 2 million tons of coal were shipped to market. On October 1, 1869, the D&H shipped to market 12,000 tons of coal, the largest amount ever shipped in one day; during 10 hours on the same day, they hauled 2,000 cars over the mountain. At one point in 1870, there were 350,000 tons of coal piled up at Honesdale.

On January 16, 1866, Thomas Dickson was elected Vice president of the D&H. At that time, a concerted program of market expansion for D&H coal was initiated by D&H President George Talbot Olyphant and Thomas Dickson. An important feature of those market expansion plans included (1) buying new coal lands, and (2) expanding the D&H rail network beyond the Lackawanna valley.

In order to buy additional coal lands, the D&H had to get a supplement to its charter to allow it to hold additional acres of coal lands. The D&H did so, and then bought 3,500 acres of Union Coal Company and Baltimore Company lands. Here is what they bought: "...over three thousand acres of coal lands owned in fee, and eleven hundred acres held under favorable leases; four coal breakers with all appurtenances, capable of turning out more than two thousand tons of anthracite daily, and seventeen miles of railroad connecting with the [D&H] company's line in the Lackawanna valley near Scranton. The properties of the two companies (Union and Baltimore) also included four locomotives, five hundred and fifty coal cars and one hundred canal boats."

(*Century of Progress*, p. 197). To access those new coal lands, D&H Gravity-gauge tracks were laid from Providence to Green Ridge to the Baltimore mines in Wilkes-Barre.

With the acquisition of those new coal lands, additional markets for anthracite coal were necessary. The D&H, accordingly, focused on the development of new markets to the North, to the South, and to the West, in Albany and beyond, in Baltimore, in the Great Lakes region.

It was destiny that placed Thomas Dickson, an enthusiastic and skilled promoter of railroad expansion (acquisition, construction, and improvement), at the head of the D&H, as president, on May 13, 1869. Under his inspired leadership as President, D&H rails and markets were expanded significantly, and the D&H mining and transportation enterprise ascended to yet new heights. Consider the following seven D&H railroad expansion and enrichment achievements, all of which were orchestrated under the direction of Thomas Dickson:

**1. Albany and Susquehanna Railroad Leased for 99 Years:** The officers and managers of the D&H, having recognized the potential usefulness of the Albany & Susquehanna Railroad in marketing D&H coal at Albany and north of that city, negotiated a contract with the A&S, in July 1866, providing for completion of the A&S to Nineveh within a year, and for moving 500,000 tons of D&H coal over the A&S in A&S cars "from any point where tendered for loading." Under that agreement, the D&H bought \$500,000 worth of A&S second mortgage bonds. Remarkably, the D&H entered into this agreement with the A&S four years before D&H rails could connect with the A&S, knowing, of course, that one day in the not-too-distant future that they would.

On January 12, 1869, the Albany & Susquehanna Railroad (a 6-foot gauge line, from Albany to Binghamton) opened with a commemorative excursion. On February 24, 1870, Joseph H. Ramsey and the A&S Board of Directors leased to the D&H for 99 years "the property and franchises of the Albany & Susquehanna Railway Company at an annual rent of \$490,000 or 7 per cent upon its capital, and bonded debt of \$7,000,000." (*Hollister*, p. 179) With a lease arrangement on the A&S and all of its branches in place, the D&H then took an important step to make that rail line D&H user-friendly. On June 8, 1871, President Dickson submitted a letter on this subject to the Managers in which he declared that placing a third rail on the line, so as to permit the handling of equipment of the standard gauge, was of the highest importance and would place the railroad "in direct and close communication with the whole railroad system of the country." The 143-mile long line between Binghamton and Albany would become known as the Susquehanna Division of the D&H.

**2. Albany Became a Second Rondout:** Remarkably, the D&H, as early as 1866, had plans to erect at Albany an immense coal depot and to make Albany, in effect, a second Rondout. That fact we know from an article that was published in the *Albany Evening Post* and reprinted in the March 24, 1866 issue of the *Carbondale Advance*. In that remarkable article, we read: "...A few days since certain gentlemen connected with the Delaware & Hudson Canal Company, contracted with the Directors of the Albany and Susquehanna Railroad to bring to Albany as soon as the road is opened to Binghamton 500,000 tons of coal per year [emphasis added]. This is an immense

contract, and will give the road an amount of freight, that will soon force them to put down a double track the whole length of the road. / To carry out the designs of the Coal [sic] Company, an immense coal depot is to be erected at this city, one of the largest in the State, for it is the intention of those interested, to make Albany a second Rondout in the way of anthracite coal movements. [emphasis added]. *Albany Eve. Post.*" (*Carbondale Advance*, Saturday, March 24, 1866, p. 2)

**3. PA Coal Fields Connected with New York and New England Railroad System:** The D&H entered into a contract, in September 1868, with the Erie Railway Company by which they engaged to construct a steam railroad—the Jefferson Branch—from Carbondale to the Erie main line at Lanesboro, to be completed June 1, 1870, the Erie, thereafter, to transport coal for the Delaware and Hudson Canal Company to Rochester and Buffalo. The **Jefferson Branch of the Erie Railroad** (Carbondale to Lanesboro Junction: line opened in October 1870; five days later, on October 15, 1870, the D&H advertised for proposals to construct the Lackawanna and Susquehanna Railroad from Lanesboro to Nineveh. On October 28, 1870, the first coal train ran on the Jefferson Branch. The Jefferson Branch was the link between the coal fields in Pennsylvania and all markets for coal north of Carbondale. As such, its importance in the history of the D&H can not be over-stated. To strengthen and unify the D&H transportation system in the Lackawanna Valley, the D&H constructed the **Valley Road**, a standard-gauge rail line between Scranton and Carbondale, which opened on July 4, 1871, and purchased the **Union Railroad**, between Wilkes-Barre and Scranton.

**4. D&H Coal Transported to Weehawken by Erie:** The D&H entered into a contract, in September 1868, with the Erie Railway Company to transport D&H coal from Honesdale to Weehawken Dock during the winter months. Marketing coal during the winter months in New York City was now possible.

**5. Rensselaer and Saratoga Railroad Leased:** Incorporated on April 14, 1832, the R&S, and all of its branches, together with the line of steamers on Lake Champlain, leased (\$750,000 a year in perpetuity) to the D&H on May 1, 1871. D&H coal could now be marketed as far north as Whitehall, via Albany. This sprawling line, 181 miles in length; was merged into the D&H on July 2, 1945.

**6. Lackawanna and Susquehanna Railroad Constructed:** 23.3 miles from Jefferson Junction to Nineveh. The line opened on January 1, 1872. D&H coal could now be marketed in upstate New York without having to pass through Binghamton.

**7. New York and Canada Railroad Constructed:** Whitehall to Rouse's Point, Canada. The line was opened for business on November 26, 1875. The New York and Canada railroad was originally chartered with a capital stock of \$3,000,000, and was designed for two distinct purposes: (1) To enable the Delaware & Hudson Canal company (which controlled a line of railroads from

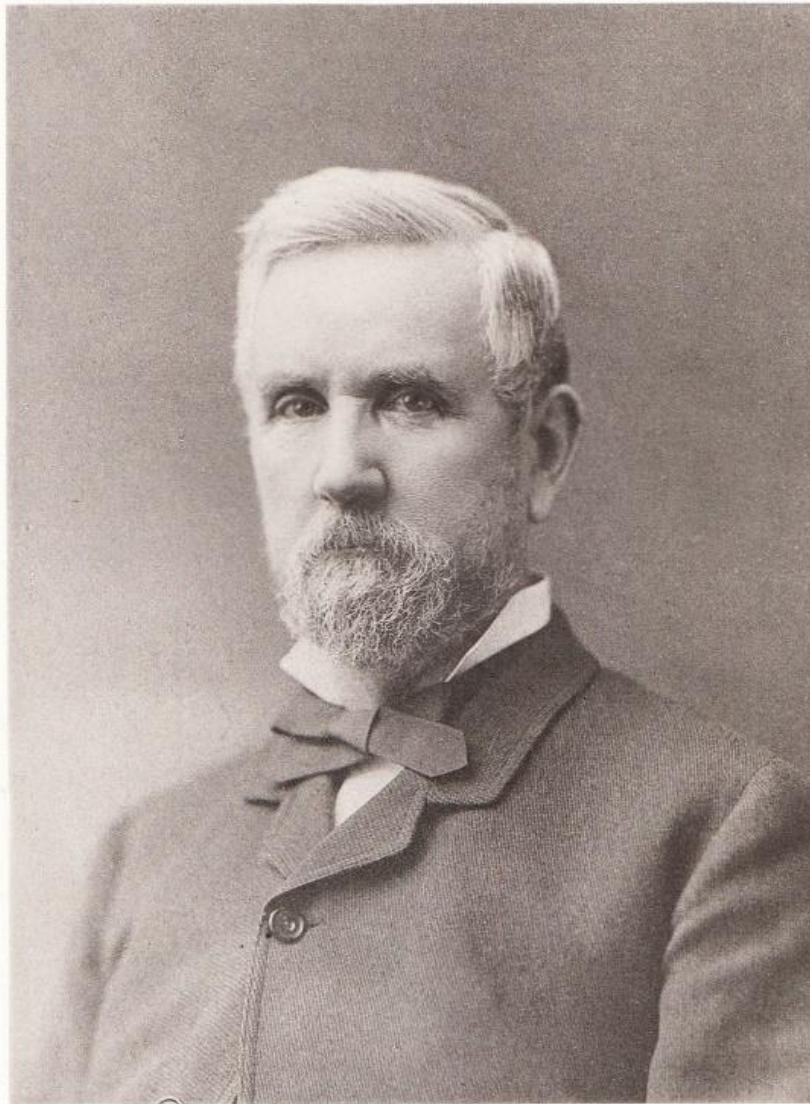
its coal fields to Whitehall) to ship its anthracite beyond that point to Canada over its own rails; and (2) To reach and develop; the magnificent iron ore interests of Essex, Clinton, and adjoining counties on the western shore of Lake Champlain. The length of the road from Whitehall to the Canada line is 114 miles. This rail line gave the D&H access to Montreal and all of Canada year round. (The D&H had, therefore, an advantage over all its coal-mining rivals in that it could ship coal to Canada without using water communication.) To commemorate the completion of this line, the D&H hosted a commemorative excursion from Albany to Montreal on November 16-19, 1875. Among the prominent individuals invited by President Dickson to join the D&H managers on this excursion were John Jacob Astor, J. Pierpont Morgan, Samuel Sloan, Cornelius Vanderbilt, Chester A. Arthur, Samuel J. Tilden, and U. S. President Ulysses S. Grant. The train consisted of a baggage car, hotel car, seven Wagner Palace coaches, a directors' coach, and at the rear an open "Baldwin" coach.

Such then are the primary accomplishments of Thomas Dickson as a D&H officer (Coal Superintendent, General Superintendent, Vice President, and President) in the first fifteen years of his service to the D&H, 1860-1875 (with nine additional years still ahead of him as president of the company). About Thomas Dickson and his accomplishments as an officer of the D&H in those first fifteen years of service to the D&H, Horace Hollister, M.D., in his *History of the Delaware and Hudson Canal Company* (1880), said the following:

"He rose from the ranks of the people by no other reason than that of his own inspiration. A man of talent and character, prudent in speech, excellent in judgment,...estimating time too highly to permit an hour to go by in idleness, he rigidly practiced the industry himself which he desired others to imitate for he considered that no man unwilling to assist himself deserved aid from others. He has given his whole heart to the interests of the Company in all its progressive developments as if they had been his own and thus has become the moving spirit in its modern progress and history,...occupying every intermediate position from a driver boy to the presidency of this great Company, which, by its immense capital of twenty millions and its ramifications of nearly one thousand miles of railway, underground and overground, has become established as a commonwealth of itself. The advancement of Thomas Dickson as a railroad magnate may be attributed to two simple facts, first, he never abandoned what he had considerably undertaken without accomplishing it; second, he dealt with all men in good faith and fairness and never broke his word. He said what he meant and meant what he said, as thousands of employees of the Delaware and Hudson Canal Company and others can attest."

(End of Part 1)

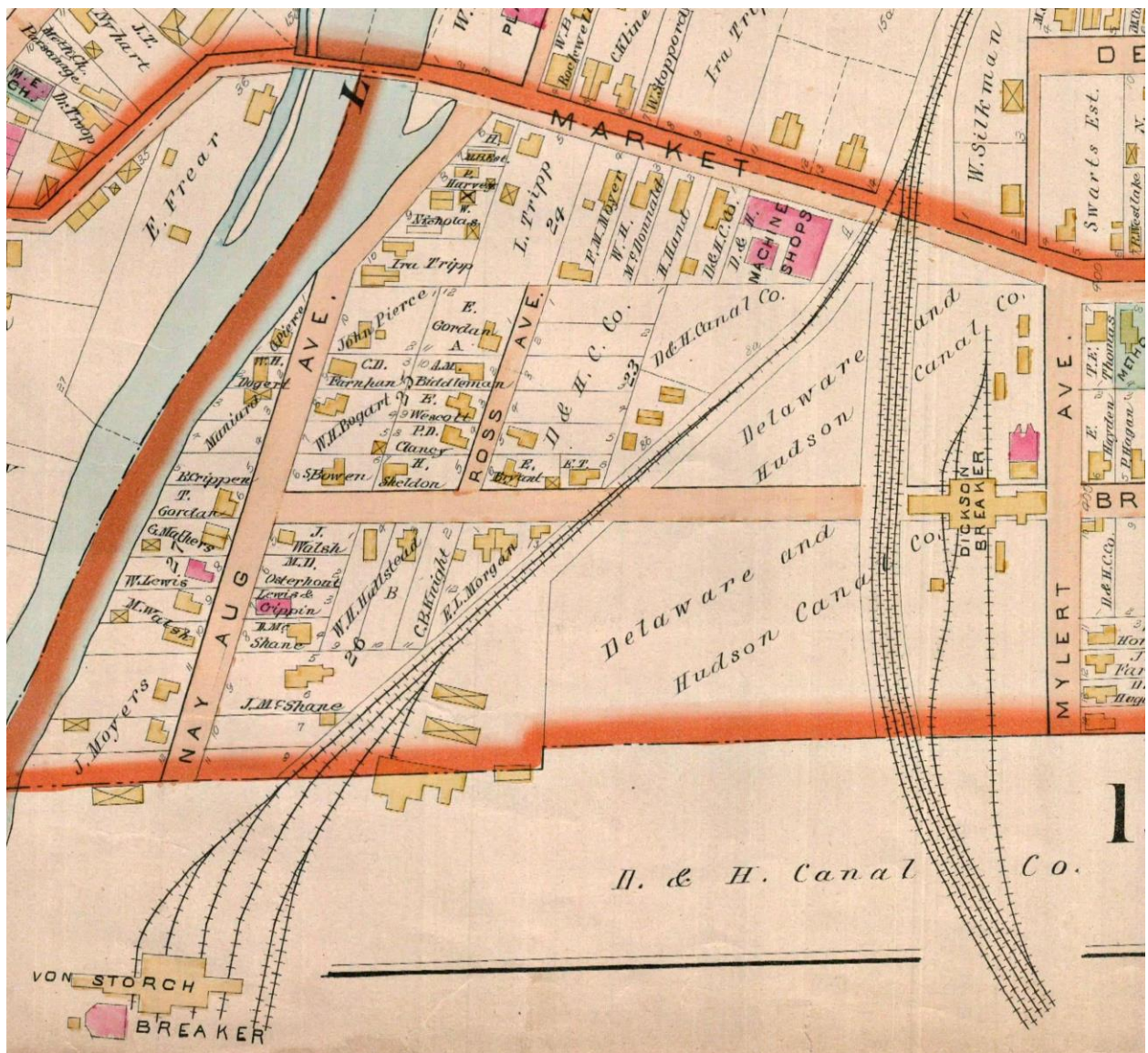
Photos in Thomas Dickson article, Part 1:



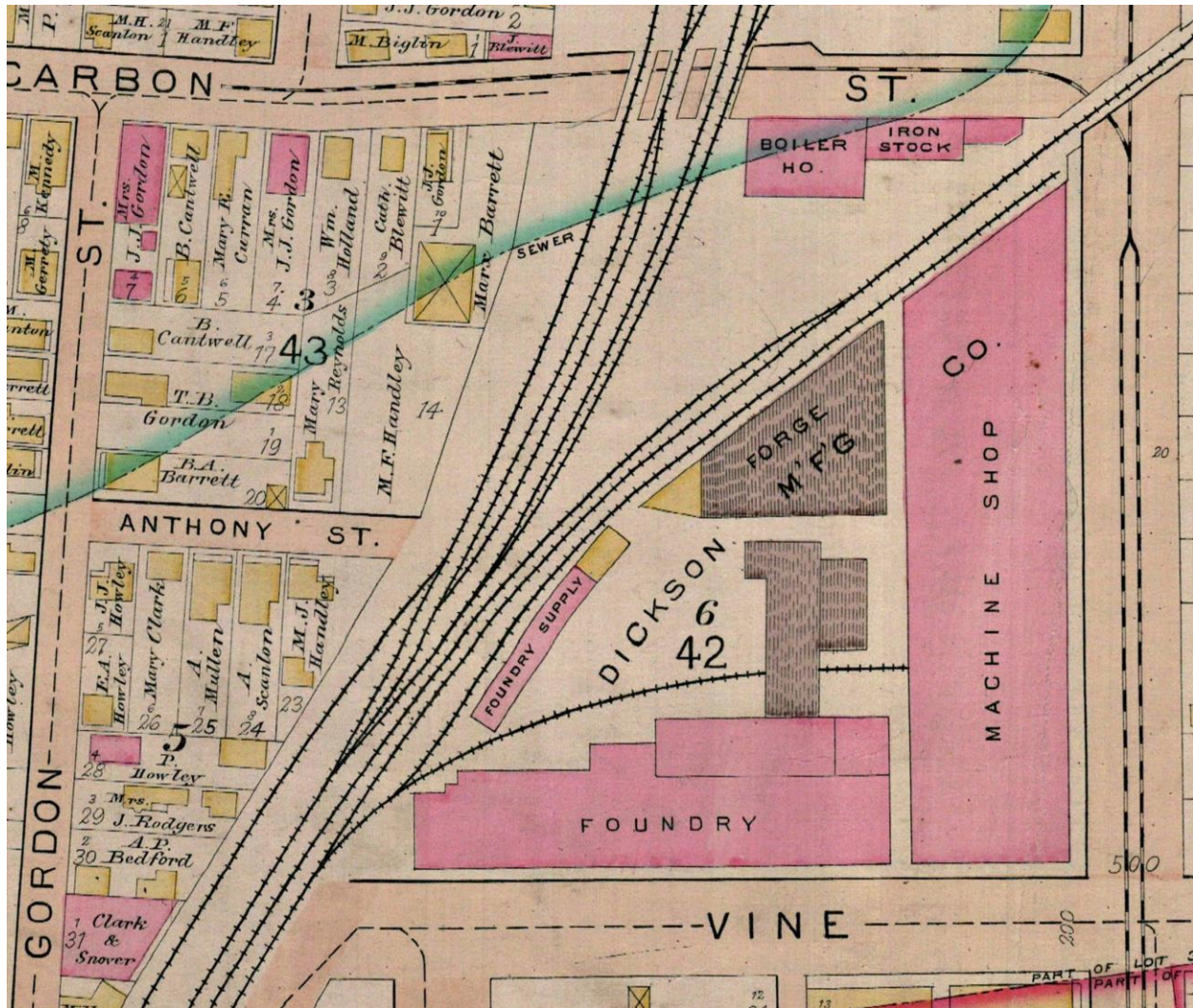
THOS. DICKSON.

1883.

Thomas Dickson, 1883 (*The Life of Thomas Dickson. A Memorial* by Samuel C. Logan, 1888, p. 96)



Dickson Breaker, Breaker Street and Meylert Avenue, Providence (detail of 1899 map of Scranton; breaker at far right, center)



Dickson Manufacturing Company, Vine Street and Penn Avenue, Scranton, PA (detail of 1899 map of Scranton)



Dickson Mausoleum, Dunmore Cemetery, Dunmore, PA

88. The article “Thomas Dickson, Empire Builder and Gentleman Part 2” by S. Robert Powell was published in the October 2022 issue of the *Bridge Line Historical Society Bulletin*, pp.15-16, 18:

## **Thomas Dickson, Empire Builder and Gentleman Part 2**

By S. Robert Powell, Ph.D.

At the grand opening ceremony of the New York & Canada Railroad in November 1875, Thomas Dickson gave the following summary statement of the growth of the D&H in the course of the nineteenth century: “To convey to you an adequate impression of the growth of the Company, I may say that in 1830, the total product was 43,000 tons, and in 1860, the year of my entering the service of the Company the product had reached 541,000 tons; the present year it will be three millions; in 1860 the Company had a productive capacity of not to exceed 600,000 tons per annum, had 108 miles of canal, and 23 miles of railroad; its productive capacity is now four millions of tons per annum [In 1899, four and a half million tons of coal were shipped to market by the D&H], and in addition to the canal it owns and operates 700 miles of railway, besides some 200 miles of underground railway in their mines; and while the capital stock has been increased from time to time, until now it reaches twenty millions, the increase of product and of the business has been much larger in proportion.”

Having worked energetically to construct and manage the anthracite mining and transportation empire that the D&H had become in post-Civil War America, Thomas Dickson took a year’s leave of absence from the D&H, and he and his wife took their long-contemplated trip around the world.

On September 7, 1871, just previous to the departure of the Dicksons from Scranton on their round the world tour, the Dicksons hosted a grand reception at their residence in Scranton. The following announcement of that reception was published in the *Carbondale Advance* of September 2, 1871, p. 3: **“The Great Social Event.** / The special social event of the week is the grand reception, to be given by Thos. Dickson, esq., President of the Del. & Hud. C. Co., and Lady, at their residence in Scranton, on this evening—just previous to their leaving home on a trip to China and thence around the world. It will doubtless surpass in magnificence, and the perfection of the arrangements for the comfort and pleasure of the guests, anything seen in Northern Pennsylvania.”

The world tour by the Dicksons is described by Samuel C. Logan in *The Life of Thomas Dickson A Memorial* (Scranton, 1888, pp. 96-97) as follows: "...About the first of September, 1871, Mr. Dickson left his home in Scranton thus accompanied by his wife, going westward to make this tour of the world. On the 24<sup>th</sup> of that month they arrived at San Francisco, and sailed from that port in the steamship 'Republic,' on the 28<sup>th</sup>, for the port of Japan and from thence to Hong-Kong. In China Mr. and Mrs. Dickson were joined by their son, who journeyed with them and returned home with them to remain. They passed through the chief countries of Asia. They traveled through Syria and Palestine on horse-back. They climbed the pyramids of Egypt, and sailed up and down the Nile

together. They threaded the narrow channels of the historic islands of the Mediterranean, sailed along the borders of Asia Minor, and thence back through the islands of Greece into Italy. Here they met friends from home and with them made the tour of Europe, using every sort of conveyance.

“They passed through Italy and climbed the mountain passes of Switzerland. They drove through Germany, stopping to drink life-waters from the medicinal fountains. They looked into the gay life of Paris and the more substantial one of London, and then passed northerly through England, and reveled among the historic hills and valleys of Scotland, in midsummer. They visited all the points which had been deemed sacred around the fireside of the emigrants in the far-off country, and traced the foot-prints of their fathers through Scotland and northern England; thence they passed into Ireland to visit what Mr. Dickson calls 'the land where my masters come from'—referring to the great number of Irish laborers it had been his life-work to employ and to serve. The tour of Scotland, Ireland, and England was completed toward the end of August, when they sailed from Liverpool on the homeward voyage. They arrived safely at home on the 27th day of August; thus having encircled the earth in just about the space of one year.”

Throughout this tour of the world, Thomas Dickson wrote many letters home. These letters home from Thomas Dickson are described by *Logan* (pp. 97-98) as follows: "From the start, he [Thomas Dickson] adopted the plan of letter-writing to his family and relatives at home, giving thereby an accurate account of his travels and impressions. These letters were forwarded with business regularity, containing accurate pictures of the lands they visited; but among them, ever visible was the unconsciously-drawn picture of the traveler himself. They were written in all manner of straits and with every conceivable inconvenience, but they were masterpieces of personal correspondence. These letters were preserved, and afterward collected and bound in a book constituting 276 pages, foolscap size. They were never intended for publication, but they remain a family souvenir, containing a great amount of knowledge and many marks of literary ability, as well as of an accurate observation." One can not help but wonder if this 276-page volume of Thomas Dickson's letters home from his world tour of 1871-1872 still exists.

Public lectures on all topics, presented by a wide variety of distinguished Americans, were a regular feature of life in the late-nineteenth and early-twentieth century America. Not surprisingly, Thomas Dickson delivered a series of public lectures on the trip that he and his wife made around the world (September 1871-August 27, 1872) in the period 1873-1879.

On February 25, 1873, he delivered a public lecture at the opera house in Scranton. In the *Carbondale Leader* of February 15, 1873, p. 3, we read:“Mr. Thomas Dickson will lecture at the opera house, Scranton, on the 25<sup>th</sup> of this month. The proceeds are to be applied to the library fund of the Y. M. C. A.”

In the March 1, 1873 issue (p. 3) of the *Carbondale Leader*, there is a notice about a lecture that Thomas Dickson gave on February 25, 1873 in Scranton. From that article we learn that two

hundred and fifty people from Carbondale took the train to Scranton to hear the lecture. From that same issue of the *Carbondale Leader*, we learn that "a good many young men" from Carbondale took advantage of the low fare offered by the D&H to those who wished to attend Thomas Dickson's lecture on February 25 and went to Scranton, not to attend Thomas Dickson's lecture, but to attend other kinds of presentations: "A good many of our economical young men took advantage of the low rates of fare on Tuesday evening, and instead of going to hear Mr. Dickson's lecture, attended the Varieties." Enterprising. Amusing. Young men will be young men.

On November 19, 1874, Thomas Dickson, "a lecturer of decided abilities," presented a lecture, titled "What I Saw in India," to the "nearly filled spacious opera-house" in Scranton. The lecture was a benefit for the Y. M. C. A. (*Carbondale Advance* of November 21, 1874, p. 3)

On December, 23, 1874, Thomas Dickson delivered a lecture "to the largest house of the season" in Nealon's Hall, Carbondale, to benefit the Young Men's Library Association. In the *Carbondale Advance* of December 26, 1874, p. 3, we read: "**The Lecture.** / The "largest house of the season" greeted Mr. Dickson at Nealon's Hall last night—Wednesday. Every seat was filled and every person in attendance seemed delighted with the lecture, which abounded with descriptive eloquence, wit, pathos and sentiment. The lecture was also a great pecuniary success to the Young Men's Library Association. Not only this association, but our citizens generally, who were in attendance, thank Mr. Dickson for his lecture." On May 1, 1875, Thomas Dickson spoke in Hyde Park, Scranton, for the benefit of the Presbyterian Church.

In January, 1878, Thomas Dickson presented an eloquent and interesting description of India, as seen by himself, in Carbondale's Methodist church, which was well filled for the occasion: "**Lecture of Mr. Dickson.** / Notwithstanding the very unfavorable state of the weather last Tuesday evening, the M. E. Church was well filled, by an intelligent and appreciative audience, to listen to Mr. Dickson. A few minutes was devoted to singing, after which the speaker was introduced by Rev. Mr. Shelland. He commenced with an amusing incident, which brought down the house, and then proceeded to give an intelligible, eloquent, and interesting description of India, as seen by himself, taking up in detail, the different places through which he passed, giving a vivid description of all that was worth seeing and admiring, interspersed with occasional humorous anecdotes, which kept the audience in constant good humor. Mr. Dickson, by this lecture, has added to his already enviable reputation as a lecturer, and we hope the day is not far distant when we may have the pleasure of listening to him again." (*Carbondale Leader*, January 20, 1878, p. 3)

In December, 1879, Thomas Dickson lectured on "Syria and Palestine" in the Ross Street Methodist Episcopal church in Wilkes-Barre for the benefit of the church. This was a lecture that he had previously delivered in Carbondale: "**MR. THOMAS DICKSON AS A LECTURER.** / Mr. Thomas Dickson is to deliver his lecture on 'Syria and Palestine' in the Ross street M. E. church, Wilkes-Barre, on the evening of the 19<sup>th</sup> inst. Our own people have had the pleasure of

hearing this entertaining and instructive lecture. It is delivered not only gratis for benevolent objects, but Mr. Dickson always insists on paying the admission fee. His literary efforts are highly creditable to him, as well as the means of drawing many dollars into the treasury of churches and benevolent institutions throughout a wide extent of country. If ‘corporations have no souls,’ it cannot be said of the highest officer of one of the greatest of them.” (*Carbondale Leader*, December 13, 1879, p. 2)

Following the world tour of the Thomas and Mrs. Dickson, Thomas Dickson continued to serve the D&H, but it became more and more difficult for him to do so as the years passed. In the spring of 1882, at the urging of family and friends and for the benefit of his health, Thomas Dickson and family again traveled abroad for three months, this time to England, Scotland, and the European continent.

The Dicksons sailed for Europe in early May 1882 and returned that autumn. Four of the letters that Thomas Dickson wrote home to his sister, Mrs. A. Watt, in Carbondale, were published in the *Carbondale Advance*: The first from **Disentiser Hof, Disentis, Switzerland, July 20, 1882.** (*Carbondale Advance*, August 26, 1882, p. 3); the second from **Regent’s Hotel, / Leamington, Aug. 8, 1882.** (*Carbondale Advance*, August 26, 1882, p. 3); the third from **CALEDONIAN HOTEL, INVERNESS, SCOTLAND, August 27, 1882.** (*Carbondale Advance* of September 16, 1882, p. 3; the fourth from **ST. ENOCH’S HOTEL, GLASGOW, Sept. 24, 1882.**”(*Carbondale Advance* of October 14, 1882, p. 3).

In early November, 1882, Thomas Dickson and family returned home from their second trip abroad. Friends from Carbondale, we learn from the following notice, were enthusiastically awaiting his return and hoping that he would favor the city of Carbondale with a public talk here on the incidents of his journey, and his later impressions on the situation in the countries through which he has travelled:

**“RETURN OF THOMAS DICKSON.** / Thomas Dickson, Esq., and family will arrive at New York from their European trip on Sunday next, Providence permitting. We learn that late advices from them represent that the journey has been a delightful one, and has done much to recuperate Mr. Dickson’s health. The only drawback to their complete happiness has been the reception of the news of the decease of some dear friends on this side of the Atlantic. Mr. Dickson will receive a cordial welcome home from his numerous friends and relatives, but nowhere, and from no community, will his welcome be more demonstrative and sincere than here where he spent his early years. Already a movement has been started to secure from him a public talk in this city on the incidents of his journey, and his later impressions on the situation in the countries through which he has travelled. It is hoped that Mr. Dickson may accept the invitation, and that our people may be the first to be favored with a recital from his own lips of what he observed on his recent foreign tour.” (*Carbondale Leader*, November 3, 1882, p. 2)

Leading members of the Presbyterian church of Carbondale and prominent citizens of the town quickly presented an earnest invitation to Thomas Dickson for a lecture here. He replied that the “press of business would for some time prevent his doing anything in the line of lecturing; but that, should he at anytime in the future decide to enter upon a public description of his recent travels, his friends at Carbondale will have the first opportunity of listening to him.” (*Carbondale Advance*, November 18, 1882, p. 3)

Thomas Dickson, in rapidly declining health, divided his time now between Scranton and Carbondale and his summer residence in Morristown, New Jersey. He died on July 31, 1884. His earthly remains are interred in the Dickson Mausoleum in the Dunmore, PA Cemetery.

Thomas Dickson was not only an empire builder but also a gentleman, which was a rare and wonderful combination of virtues, then as now. The mining and transportation system that he developed in post-Civil War America and the communities that were born and prospered because of that mining and transportation system remained vital for over a hundred years, which made it possible for an untold number of miners and railroaders and their families to lead enriched and meaningful lives. We owe him a lot.

89. The article “Thomas Orchard: Architect and Master Car Builder for the D&H” by S. Robert Powell was published in the November 2022 issue of the *Bridge Line Historical Society Bulletin*, pp. 16-17, 23:

### **Thomas Orchard: Architect and Master Car Builder for the D&H**

By S. Robert Powell, Ph.D.

Thomas Orchard was born in Stratton, Cornwall, England, on February 27, 1820, the son of John and Mary (Yeo) Orchard. As a young man, he manifested a strong interest in design and construction, and was recognized locally as a skilled designer and builder.

Longing for a wider field than Cornwall in which to construct his life, he left England in 1840, and set sail for America, landing in Montreal, Canada. After a short time there, he moved to Honesdale, PA, and then, about 1841, to Carbondale where, at that time, James Archbald, assisted by Charles Pemberton Wurts\*, was the D&H Chief Engineer. Upon his arrival in Carbondale, Thomas Orchard, age 21, seeking work, would have then presented himself and his credentials to D&H management at the Gravity Shops. That presentation must have been very successful, for Thomas Orchard, age 21, was then hired by the Delaware & Hudson Canal Company as pattern maker and builder in the D&H Shops in Carbondale.

In that capacity, Thomas Orchard and Charles Pemberton Wurts became good friends, and C. P. Wurts recognized and acknowledged Orchard’s worth and superior ability by making him

superintendent for the building of the many buildings erected under the direction of the D&H at the time. Among the buildings for which Thomas Orchard had the contract were the residences of several leading citizens (J. B. Van Bergen, T. R. Durfee, Eli E. Hendrick) as well as the first Catholic Church in Carbondale, Graded School No. 1, and the Carbondale City Hall that was built in 1860.

In 1862, Thomas Orchard was named Superintendent of the D&H Car Shops, and therein, under his direction, hundreds of “Jimmy” Gravity coal cars (12 feet eight inches long, 4 feet two inches wide, with 18-to-24-inch wheels, 5-ton capacity, and weighing 5,800 pounds) were built in the Carbondale D&H shops. When the Delaware & Hudson commenced the building of passenger coaches in the late 1870s, Thomas Orchard was named Master Car Builder, which was a very high status position in both the D&H and in the community.

On July 4, 1871, the D&H steam locomotive line between Carbondale and Scranton opened. Passenger coaches for use on the line were under construction when the line opened. In the *Carbondale Advance* of June 28, 1873, we read: **“Passenger Car Building.** / R. Manville Esq., Supt. Del. & Hud. R. R. is having some very elegant Passenger Cars got up under the supervision of Thomas Orchard Esq. at their shops in this city. One of them is now ready for use, and is a model of strength and artistic beauty and taste. The panel work, the windows and doors, the upholstering, the ventilators are all beautiful, and skillfully constructed. We believe the work is not surpassed in the best shops in Concord, Troy or Philadelphia.”

On June 28, we learn from an article in the July 5 issue of the *Carbondale Leader*, the first of the new passenger coaches was taken for a trial run from Carbondale to Archbald: “Last Saturday afternoon Superintendent Manville and a car load of ladies and gentlemen took a trip as far as Archbald in the new passenger car just manufactured at the shops here. The new car is as easy a one to ride in as anyone could wish for. It is built of the very best material, and is furnished with first-class seats, and is decorated very tastefully. The ventilation is a great improvement on the old style. Two similar cars are being made at the Company’s shops in this city, and the business will probably be carried on permanently. We see no reason why it should not be when such an elegant car as the one spoken of can be turned out.” (*Carbondale Leader*, July 5, 1873, p. 3)

Regular passenger service on the Gravity Railroad from Carbondale to Honesdale was instituted on April 5, 1877. All the passenger coaches used on the Gravity Railroad were built in the Carbondale Car Shops under Thomas Orchard’s direction. With the exception of metal parts the cars were entirely built by the Delaware and Hudson force, the wheels being purchased from the Van Bergen Foundry in Carbondale.

In the earliest passenger coaches built for the Gravity Railroad, the seats ran lengthwise. Beginning with the coaches built in the autumn of 1877, the seats ran across the car instead of lengthwise. In the *Carbondale Advance* of September 22, 1877, it was noted that these new coaches “will make the road first-class and still more attractive to the traveling public.”

As more and more passengers were carried by the Gravity Railroad, it became very clear that additional passenger coaches had to be built. In the *Carbondale Advance* of January 11, 1879, we read: “**New Cars.** / The D. & H. are building in their car shops in this city, two summer coaches for the gravity line between Carbondale and Honesdale, similar in construction to city street cars, given to the summer travel. / The platform upon each end of the cars is small, to be used only by the brakeman in the work allotted him. The sides are to be open, and eight seats arranged in comfortable style, reaching from one side of the car to the other, leaving no aisle in the center as in the common railroad coach. A small platform running the whole length of the car will be arranged for the conductor, upon which he will collect tickets and fares. Each seat will furnish room for six persons, and give them sufficient elbow room. Curtains will be placed upon each coach for use during a time of storm, and other improvements also added for the convenience of the traveling public. / Thomas Orchard, master car builder, has the work in charge, and we are assured it will be well done. / They will put them into use about April first. This must necessarily increase the travel over the mountain, and furnish much enjoyment for excursionists. / This new addition to the attractions of this route, shows Sup’t. Manville’s determination to make every effort to gratify and serve their patrons and the public.”

In 1886, eight new Gravity excursion cars were built in Carbondale; in 1887, six more were built; in 1890, two baggage cars and 6 additional excursion cars (the inside finish was of natural wood--ash, cherry, oak--with canvas headlinings painted and decorated, the exterior painted red with gold striping and lettering; over each journal box a rubber cushion was inserted to absorb shock) were built.

In the Gravity coaches that were built, starting in 1892, Baker heaters were installed. In the *Carbondale Leader* of November 11, 1892, we read: “**NEW GRAVITY COACHES.** / Being Now Turned Out of the Shops in This City. / A new coach, No. 28, is now being run on Conductor Hubbard’s narrow gauge train between this city and Honesdale. It is finely finished, and is warmed by a Baker heater, hot water being used, which is carried in pipes along each side of the car, furnishing an equal supply of heat throughout the entire coach. All of the covered cars, in daily use, are to be supplied with similar heaters. / Two new coaches are being built in Master Car Builder Orchard’s shop in this city for use on the Gravity. They will be somewhat longer than the present ones, affording seating capacity for three more passengers.” (*Carbondale Leader*, November 11, 1892)

Summary statement on the Gravity Railroad cars built in the D&H Car Shops in Carbondale: "For the Gravity Railroad the D&H Car Shops has built 4 Officer’s cars (“Monitor,” “Moosic,” “Passaic” and “Coach 80”); 9 Passenger cars; 5 Baggage cars, 32 Summer cars and 106 Box and Flat cars. The amount of lumber used annually is about 1,250,000 feet. / The cars built at this shop are as fine as those built anywhere in the United States with exception of palace cars. The inside work is all in native wood and is something of which any city might be proud.”

Summary statement, 1890, standard-gauge rolling stock built in the Carbondale car and locomotive shops: "No finer day coaches than those used by the Delaware & Hudson are to be found on any railroad in the country, and they are all built at the Carbondale shops. The first passenger coaches built here were Nos. 5 and 6 and baggage car No. 2. Since 1872, there have been built at this shop for the locomotive road, 30 passenger coaches, 5 combination cars, 4 mail, baggage and express cars, 1 baggage and express car, 41 caboose cars, and 29 flat and baggage cars, besides doing the repairs incidental to the operation of a busy railroad system. / In the locomotive shops, there is some of the most modern and improved machinery to be found. The shop is illuminated by electric light. Since 1887 three passenger and eleven freight engines have been rebuilt here, and fifty engines are now repaired annually. There is an air-brake school here, for the instruction of engineers, equipped with driver and tender brakes, and a train of four cars; also the train whistle's signal."

Given his expertise in car building and his interest in architecture in general, it is not surprising that Thomas Orchard made a trip to his native land, England, in 1851, to visit the Great Exhibition of 1851 in Hyde Park, London, and to see, first-hand, Joseph Paxton's Great Exhibition Building (cast iron and plate glass; 1,851 feet long and 128 feet high) in which the exposition was housed.

Thomas Orchard was not only a master builder, but also a master gardener and maintained a greenhouse in Carbondale. In that greenhouse, he had a Night Blooming Cereus (*Selenicereus grandiflorus*), which was a sensation in the community when it blossomed in July 1881. In the *Carbondale Advance* of July 9, 1881, we read: "**Night Blooming Cereus.** / This rare flower is again exhibiting its beauty and fragrance in the greenhouse of Thomas Orchard. There were thirty buds on the plant, nine of which opened on Saturday evening, five on Sunday evening, and six on the night of the fourth. The perfume of so many at one time is too dense for health. It soon creates headache and if closely confined with it, it would suffocate. A little of it is very grateful and appreciated."

Thomas Orchard—architect, gentleman, and D&H Master Car Builder—died on December 30, 1895. His son, John H. Orchard (who began working in the Carbondale D&H Car Shop in October 1872, and who was promoted to General Car Inspector on April 1, 1886, and who was then promoted to Assistant Master Car Builder on January 1, 1893) succeeded his father as D&H Master Car Builder.

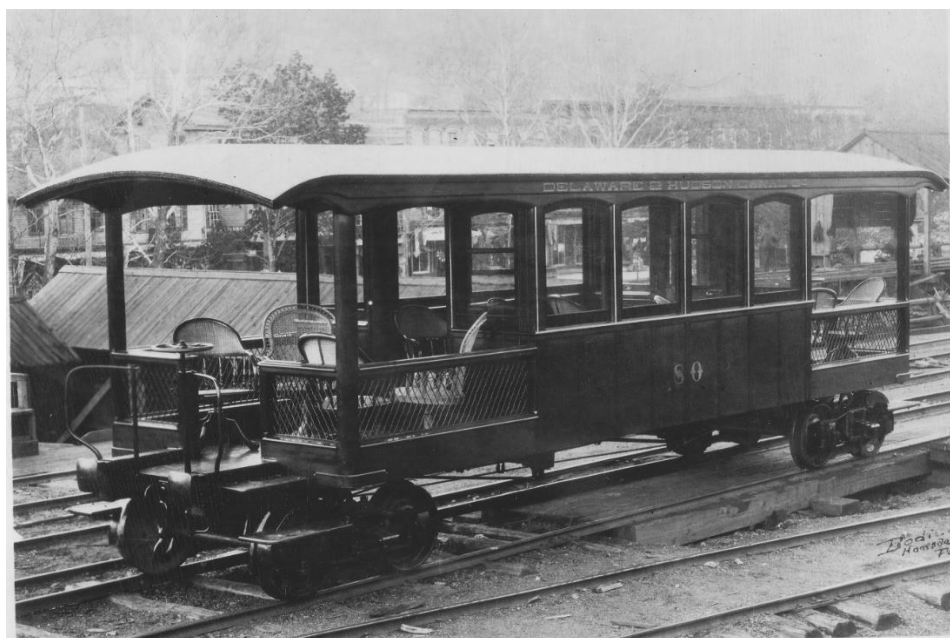
\*Charles Pemberton Wurts (nephew and adopted son of John Wurts, third president of the D&H) was one of the sons of George and Abigail Petitt Wurts. He was born in 1824 in Montville, NJ, and began working for the D&H at age 19. He married Laura Jay in 1854. She was a granddaughter of Peter Augustus Jay and the great granddaughter of Supreme Court Justice and diplomat John Jay.

\* \* \* \* \*

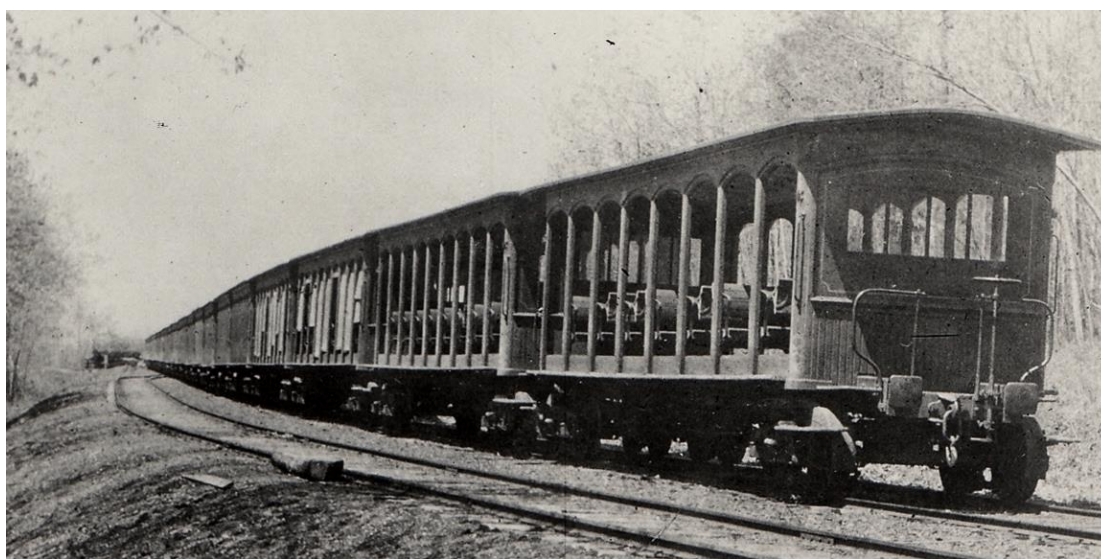
Photos in the Thomas Orchard article:



*D&H Car Shops, Carbondale, view of interior. Wearing the straw boater and looking directly at the photographer is Thomas Orchard, D&H Master Car Builder. Photo courtesy of Carbondale Historical Society.*



*Car No. 80 D&H Gravity Railroad. This is one of four officers' cars that were designed and built under the direction of Thomas Orchard. Photo courtesy of Carbondale Historical Society.*



*Open-air Passenger Cars, Descending Level 20 on the D&H Gravity Railroad. Photo by Ludolph Hensel, Hawley, PA. Photo courtesy of Carbondale Historical Society.*



*D&H Passenger Coach (on the left) and a Combination Freight and Passenger Car (on the right) at Union Station, Carbondale, on the D&H Gravity Railroad. Photo courtesy of Carbondale Historical Society.*

90. The article “White Pine and White Oak Lumber in Roebling’s Four D&H Aqueducts” by S. Robert Powell was published in the December 2022 issue of the *Bridge Line Historical Society Bulletin*, pp. 16-17, 19:

### **White Pine and White Oak Lumber in Roebling’s Four D&H Aqueducts**

By S. Robert Powell, Ph.D.

The four aqueducts that Johann Roebling designed and built for the D&H (Lackawaxen, Delaware, Neversink, High Falls) were major components of the D&H transportation system between the coal fields of northeastern Pennsylvania and the Hudson River (see our four articles on those aqueducts in the *Bulletin*: 9/2019; 11/2019; 12/2019; 1/2020).

Those four aqueducts, which were unqualified successes, both as structures and as features of a complex transportation system, were primary components of the third enlargement of the D&H Canal, which was begun in 1848 and completed in 1849-1850. (The Lackawaxen and Delaware aqueducts were built in 1847-1848, and were put in service on April 26, 1849; the Neversink and High Falls aqueducts, which were built by the D&H in 1828-1829 when the Canal was constructed, were re-built in 1849-1850 by Roebling, and were put in service in 1851.)

With the third enlargement completed, the D&H Canal was now 48-50 feet wide at the water line, 32 feet wide at the bottom, and 6 feet deep, and boats with a capacity of 130 tons, which could be taken directly into the Hudson River at Rondout and towed down to New York, could now be used. Fifty-seven of the locks were enlarged to 100 feet by 15 feet, and the annual capacity of the canal was now one million tons per year (five times what it was in 1842).

In Roebling's construction contract from the D&H for the four bridges, it was stated that Roebling would construct the superstructure or suspended spans, including all iron, timber, and wire work, and that the D&H would do all masonry and cement work.

Much has been written about Roebling's designs for these four remarkable bridges, and about the cables\* that support them, but very little has been written about the stones and the wood used in their construction. In our articles in the *Bulletin* in the December 2019 and January 2020 issues, we focused on the stones used in these aqueducts. We will now take a close look at the lumber used, above and below ground, in their construction.

In the Roebling archive at Rensselaer Polytechnic Institute, there is a flyer, shown here, titled "LUMBER / Wanted on the Del. & Hudson Canal," dated February 23, 1847, that was issued by "John A. Roebling, Engineer." From that flyer, we have learned a great deal about the lumber used, above ground, in constructing the Lackawaxen and Delaware Aqueducts (and, by extension, the Neversink and High Falls Aqueducts).

To build the Lackawaxen and Delaware Aqueducts, Roebling, by means of this flyer, made it known that he wanted to purchase 442,558 feet board measure of "good sound White Pine, all work full size, free of shakes, rents or black knots, when counter-hewed."

What are some of the qualities of white pine that made it Roebling's wood of choice for the aqueducts? White pine, first of all, has a straight an even grain, and is both light and strong, and white pines usually grow to heights of 80 feet or more (the white pine is called by some the "Sequoia of the Northeast" because it grows to such majestic heights), with diameters as much as three feet. As such, white pine would have met the quality and size requirements of the lumber required by Roebling. White pines, second of all, were abundant, then as now, in the areas where the aqueducts were to be built.

Note in the specifications shown in this lumber poster (and in the two details shown here from that poster) the enormous size and quantity specifications that Roebling established for some of the lumber to be used in building these two aqueducts: 390 pieces, 16 by 6 ½ inches, and 31 feet long; plank, 25 or 26 feet long, 2 ½ inches *uniformly* thick, 76,680 feet board measure; plank, 14 feet 4 inches long, 2 ½ inches uniformly thick, 76,680 feet board measure; 400 pieces, 14 by 7 inches at one end, 7 by 7 at the other, 16 feet long. (Given the fact that a 2 x 4 x 8, at the present time costs

about \$6, it's interesting to think what Roebling's lumber order—four hundred and forty-two thousand five hundred and fifty eight feet of lumber, much of it of very unusual lengths and thicknesses—would cost at today's prices for lumber.)

The enormous quantity of white pine lumber that Roebling wanted to buy for these two aqueducts was to be “delivered on the Pennsylvania side of the Delaware river above high water mark, between the mouth of the Lackawaxen and Delaware Dam (for Del. and Hud. Canal) by or before the first day of July next [1848]. Payment will be made when the Lumber is delivered on the bank as above stated, and approved and accepted to the satisfaction of the Engineer on Delaware and Hudson Canal for the time being. Proposals are desired to be in writing, stating the price per one thousand feet board measure, and directed to the subscriber, at the office of the Delaware and Hudson Canal Company, in Honesdale, Wayne county, Pa.”

How was that lumber used by Roebling in building the Lackawaxen and Delaware Aqueducts? (Similar lumber requests were surely issued by Roebling when he built the Neversink and High Falls aqueducts in 1849-1850.) In Robert W. Vogel's “Roebling's Delaware and Hudson Canal Aqueducts,” 1971, pp. 11, 15) we read: “The aqueducts were designed, like the locks, to pass only a single boat, but nevertheless had a [towing] path on each side. Closely following the design used by Roebling at Pittsburgh, these aqueducts had a heavy wood trunk or flume holding between 6 and 6 ½ feet of water, 19 feet wide at the waterline. The trunk sides were built up of two thicknesses of 2 ½ inch, untreated, white-pine plank, laid tight on opposite diagonals and caulked up to the waterline, in effect forming a rigid, solid-lattice truss, but without functional top and bottom chords. The stiffness of these great trusses was such that they were capable of sustaining their own deadweight, leaving the cables to carry only the water load. The floor was also of double plank, carried by transverse double floor beams, in turn hung from the suspenders as in a conventional suspension bridge. The 8-foot towpaths were bracketed out from the sides, level with the trunk top.”

White pine lumber, then, was used extensively above ground by Roebling in the four suspension aqueducts. Below ground, on all four aqueducts, Roebling's design for the bridges called for the use of another kind of lumber, white oak. In the cable anchoring system that was designed and patented by Roebling (patent approved August 26, 1846), white oak lumber was of great importance.

In his patent application for a new mode of anchorage applicable to wire bridges as well as chain bridges, Roebling states: “My improvement consists of a new mode of anchorage, applicable to Wire Bridges as well as Chain Bridges. In place of resting the anchor plate directly against a stone wall I apply in my mode a system of timbers, [emphasis added] which serve in a manner as a foundation for the superincumbent masonry, distribute the great pressure of the foundation plates over a large surface of masonry, reduce therefore its length or depth, and by its yielding and elastic nature, prevent the breaking of the anchor plates. [emphasis added]. The bed plate [a 6-foot square

cast iron plate] to which the last link [of the anchor chain] is attached is laid in a thick bed of hydraulic cement. On top of the anchor plate a platform is laid down, of about 10 feet square and 8 inches thick, composed of 4 courses of two inch white oak plank, [emphasis added] the courses crossing each other at right angles, and all spiked together with iron spikes. A thin layer of cement is spread over the anchor plate before the plank is laid down... The platform being well settled down, leveled and covered with cement, a course of timbers is laid down next which extends to the abutment. It is as wide as the platform and composed of white oak sticks hewed 12 inches square and of even thickness. The two courses, which are opposite each other, serve for the support of the resisting walls which support the pressure of the curved chains and also for the support of the main courses of foundation timbers. This course is composed of about 13 white oak sticks, 12 to 15 inches thick, 40 feet long and extending all the way across the pit. It serves for the support of the masonry the weight of which is to resist the pressure of the anchor plate. This body of masonry being about 40 feet long and 12 feet wide need not be very deep to offer a sufficient resistance to the pressure of the anchor plate. All of the timbers are copiously grouted with thin lime mortar for the purpose of preservation. They will never rot as they are deeply buried with ground and entirely excluded from the air.”

In summation, Roebling states: “What I claim as my original invention and wish to secure by Letters Patent is: The application of a timber foundation, in place of stone, in connection with anchor plates, to support the pressure of the anchor chains or cables against the anchor Masonry of a Suspension Bridge—for the purpose of increasing the base of that masonry, to increase the surface opposed to pressure, and to substitute wood as an elastic material in place of stone [emphasis added] for the bedding of anchor plates—the timber foundation either to occupy either an inclined position, where the anchor cables or chains are continued in a straight line below ground, or to be placed horizontally where the anchor cables are curved.”

White pine and white oak lumber, therefore, were of great importance in the construction of the four aqueducts that Roebling built for the Delaware and Hudson Canal Company in the period 1846-1850. One of those remarkable bridges, the Delaware Aqueduct, is still in use today, as a motor vehicle bridge, 172 years after it was built.

\* \* \* \* \*

\*The length and the diameter of the cables on a suspension bridge, it is interesting to note, are a function of the ambient temperature, year around, of the location where the bridge is located. In warm weather, the cables are slightly longer and thicker than they are in the winter. These seasonal variations in the diameter and length of the cables are managed in the Roebling D&H aqueducts by (1) the cast iron cable saddles at the top of the piers, which are just wide enough for the cables in warm weather, and (2) by the system of white oak timbers above the anchor plate in all four of the aqueducts, which is elastic enough to make possible the slight increase in the length of the cables in the summer. Were those seasonal variations in the diameter and length of the cables not possible, the support systems for the cables could be compromised, causing the bridge to collapse.

\* \* \* \* \*

Lumber Wanted Flyer, issued by John A. Roebling:

# LUMBER

## WANTED, on THE DEL. & HUDSON CANAL.

### PROPOSITIONS

Will be received until the 10th day of March next, for furnishing and delivering the following bill of Lumber, viz :

890 Pieces, 16 by 6 1-2 inches,—31 feet long.	104,910 feet Board Measure,	1,600 feet Linal Measure, 6 by 6 inches, for Railing,	4,800 feet Board Measure.
400 do. 14 by 7 inches at one end, 7 by 7 at the other,—16 ft. long.	39,200 do.	4,400 do. 6 by 7, any length over 20 feet,	4,900 do.
200 do. 7 by 18,—20 feet long.	30,400 do.	1,400 do. 5 by 5, do.	1,450 do.
800 do. 2 1-2 by 10,—10 feet long.	16,800 do.	Plank, 25 or 26 feet long, 2 1-2 inches uniformly thick.	76,680 do.
800 do. 2 by 10,—7 feet 8 inches long.	10,200 do.	Plank, 14 feet 4 inches long, 2 1-2 inches uniformly thick.	76,680 do.
400 do. 7 by 7,—12 feet long.	19,600 do.	Joist, 2 in. by 10, or 2 inches by 12, either 16, 20, or 24 ft. long.	22,400 do.
400 do. 6 by 7,—6 feet 8 inches long.	8,800 do.	Joist, 1 1-2 by 10 inches, 16 or 24 feet long.	19,200 do.
1,600 feet Linal Measure, 7 by 7 inches, for Railing.	6,538 do.		
		Total Board Measure of Pine,	442,558 feet.

All the above bill to be of good sound White Pine, and work full size, free of shakes, rents or black knots, when counter-hewed, and delivered on the Pennsylvania side of the Delaware river above high water mark, between the mouth of the Lackawaxen and Delaware Dam (for Del. and Hud. Canal) by or before the first day of July next. Payment will be made when the Lumber is delivered on the bank as above stated, and approved and accepted to the satisfaction of the Engineer on Delaware and Hudson Canal for the time being. Proposals are desired to be in writing, stating the price per one thousand feet board measure, and directed to the subscriber, at the office of the Delaware and Hudson Canal Company, in Honesdale, Wayne county, Pa. For any information relating to the above bill of Lumber, apply to the Engineers or Superintendents on Delaware and Hudson Canal.

**JOHN A. ROEBLING, *Engineer.***

February 23d, 1847.

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Joist, 1 1-2 by 10 inches, 16 or 24 feet long,	19,200 do.
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The Roebling "lumber article" as published in the December 2022 issue of the *Bridge Line Historical Society Bulletin*, pp. 16-17, 19:

*For the Record*

**White Pine and White Oak Lumber in Roebling's Four D&H Aqueducts**

by S. Robert Powell, Ph.D.

The four aqueducts that Johann Roebling designed and built for the D&H (Lackawaxen, Delaware, Neversink, and High Falls) were major components of the D&H transportation system between the coal fields of northeastern Pennsylvania and the Hudson River (see our four articles on those aqueducts in the *Bulletin*: Sept. 2019, Nov. 2019, Dec. 2019 and Jan 2020).

Those four aqueducts, which were unqualified successes, both as structures and as features of a complex transportation system, were primary components of the third enlargement of the D&H Canal, which was begun in 1848 and completed in 1849-1850. The Lackawaxen and Delaware aqueducts were built in 1847-1848, and were put in service on April 26, 1849; the Neversink and High Falls aqueducts, which were built by the D&H in 1828-1829 when the Canal was constructed, were rebuilt in 1849-1850 by Roebling, and were put in service in 1851.

With the third enlargement completed, the D&H Canal was now 48-50 feet wide at the water line, 32 feet wide at the bottom, and six feet deep. Boats with a capacity of 130 tons, which could be taken directly into the Hudson River at Rondout and towed down to New York City, could now be used. Fifty-seven of the locks were enlarged to 100 feet by 15 feet, and the annual capacity of the canal was now one million tons per year. That was five times what it was in 1842.

In Roebling's construction contract from the D&H for the four bridges, it was stated that Roebling would construct the superstructure or suspended spans, including all iron, timber, and wire work, and that the D&H would do all masonry and cement work.

Much has been written about Roebling's designs for these four remarkable bridges, and about the cables (see \* below) that support them, but very little has been written about the stones and the wood used in their construction. In our articles in the *Bulletin* in the December 2019 and January 2020 issues, we focused on the stones used in these aqueducts. We will now take a close look at the lumber

used, above and below ground, in their construction.

In the Roebling archive at Rensselaer Polytechnic Institute, there is a flyer, on page 17, titled "LUMBER / Wanted on the Del. & Hudson Canal", dated February 23, 1847, that was issued by "John A. Roebling, Engineer". From that flyer, we have learned a great deal about the lumber used above ground in constructing the Lackawaxen and Delaware Aqueducts (and, by extension, the Neversink and High Falls Aqueducts).

To build the Lackawaxen and Delaware Aqueducts, Roebling, by means of the flyer, made it known that he wanted to purchase 442,558 feet board measure of "good sound White Pine, all work full size, free of shakes, rents or black knots, when counter-hewed".

What are some of the qualities of white pine that made it Roebling's wood of choice for the aqueducts? White pine, first of all, has a straight and even grain, and is both light and strong. White pines usually grow to heights of 80 feet or more (the white pine is called by some the "Sequoia of the Northeast" because it grows to such majestic heights), with diameters as much as three feet. As such, white pine would have met the quality and size requirements of the lumber required by Roebling. White pines, second of all, were abundant, then as now, in the areas where the aqueducts were to be built.

Note in the specifications shown in this lumber poster (and in the two details shown here from that poster) the enormous size and quantity specifications that Roebling established for some of the lumber to be used in building these two aqueducts: 390 pieces, 16 by 6½ inches, and 31 feet long; plank, 25 or 26 feet long, 2½ inches *uniformly* thick, 76,680 feet board measure; plank, 14 feet 4 inches long, 2½ inches uniformly thick, 76,680 feet board measure; 400 pieces, 14 by 7 inches at one end, 7 by 7 at the other, 16 feet long. (Given the fact that a 2x4x8 at the present time costs about \$6, it's interesting to think what Roebling's lumber order - 442,580 feet of lumber, much of it of very unusual lengths and thicknesses - would cost at

today's prices for lumber.)

The enormous quantity of white pine lumber that Roebling wanted to buy for these two aqueducts was to be "delivered on the Pennsylvania side of the Delaware river above high water mark, between the mouth of the Lackawaxen and Delaware Dam (for Del. and Hud. Canal) by or before the first day of July next [1848]. Payment will be made when the Lumber is delivered on the bank as above stated, and approved and accepted to the satisfaction of the Engineer on Delaware and Hudson Canal for the time being. Proposals are desired to be in writing, stating the price per one thousand feet board measure, and directed to the subscriber, at the office of the Delaware and Hudson Canal Company, in Honesdale, Wayne County, Pa."

How was that lumber used by Roebling in building the Lackawaxen and Delaware Aqueducts? Similar lumber requests were surely issued by Roebling when he built the Neversink and High Falls aqueducts in 1849-1850. In Robert W. Vogel's "Roebling's Delaware and Hudson Canal Aqueducts", 1971, pp. 11, 15) we read:

"The aqueducts were designed, like the locks, to pass only a single boat, but nevertheless had a [towing] path on each side. Closely following the design used by Roebling at Pittsburgh, these aqueducts had a heavy wood trunk or flume holding between 6 and 6½ feet of water, 19 feet wide at the waterline. The trunk sides were built up of two thicknesses of 2½ inch, untreated white-pine plank, laid tight on opposite diagonals and caulked up to the waterline, in effect forming a rigid, solid-lattice truss, but without functional top and bottom chords. The stiffness of these great trusses was such that they were capable of

*continued on page 19*

*Page 17:*

"LUMBER Wanted on the Del. & Hudson Canal" flyer (and two details), dated February 23, 1847, issued by John A. Roebling, Engineer. The original of this flyer is in the Roebling archive at Rensselaer Polytechnic Institute, Troy, NY.

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Nope, "great peace of mind" is not the takeaway there. If the governor isn't clear on what's troubling about her comment, it might be time for her to give "1984" another read. It's a nightmare, not a handbook. That said, we understand wanting to bring riders back into the subway by assuring them they'll be safe.

Note, though, that there are questions about cameras' effectiveness as a deterrent; **Gothamist** reported last year that MTA added 784 cameras in 2020, but even as ridership fell steeply, the subway did not see a proportional drop in crime. And as security experts have noted, surveillance has a disproportionate effect on communities of color because its use, and the use of its data, might be guided by bias. Law enforcement access to the MTA footage should be only for investigating specific incidents, not for general surveillance or padding facial recognition databases. Let's keep Orwell in the realm of fiction, shall we?

editorial in Albany **Times Union**

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#### *William Young from page 15*

with the company, and to assure you of their high regard and of their sense of the valuable services you have rendered in prosecuting the road and advancing its interests.

In now leaving a work which is so largely indebted to your energy and professional skill, the Board desires to express sentiments of esteem and to proffer its sincere wishes for your continued health and happiness.

Very respectfully, your obedient servant,

Oliver H. Lee, *Secretary*

*The above is from the collection of the late Frank Doherty.*

DAIH-BLHS-DAIH-BLHS-DAIH-BLHS-DAIH-BLHS-DAIH-BLHS-DAIH-BLHS-DAIH

#### **For the Record** from page 16

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White pine lumber, then, was used

extensively above ground by Roebling in the four suspension aqueducts. Below ground, on all four aqueducts, Roebling's design for the bridges called for the use of another kind of lumber: white oak. In the cable anchoring system that was designed and patented by Roebling (patent approved August 26, 1846), white oak lumber was of great importance.

#### **A new mode of anchorage**

In his patent application for a new mode of anchorage applicable to wire bridges as well as chain bridges, Roebling states:

"My improvement consists of a new mode of anchorage, applicable to Wire Bridges as well as Chain Bridges. In place of resting the anchor plate directly against a stone wall I apply in my mode a system of timbers [emphasis added], which serve in a manner as a foundation for the super-incumbent masonry, distribute the great pressure of the foundation plates over a large surface of masonry, reduce therefore its length or depth, and by its yielding and elastic nature, prevent the breaking of the anchor plates [emphasis added]. The bed plate [a 6-foot square cast iron plate] to which the last link [of the anchor chain] is attached, is laid in a thick bed of hydraulic cement. On top of the anchor plate a platform is laid down, of about 10 feet square and 8 inches thick, composed of four courses of two-inch white oak plank [emphasis added], the courses crossing each other at right angles, and all spiked together with iron spikes. A thin layer of cement is spread over the anchor plate before the plank is laid down. ... The platform being well settled down, leveled and covered with cement, a course of timbers is laid down next which extends to the abutment. It is as wide as the platform and composed of white oak sticks hewed 12 inches square and of even thickness. The two courses, which are opposite each other, serve for the support of the resisting walls, which support the pressure of the curved chains and also for the support of the main courses of foundation timbers. This course is composed of about 13 white oak sticks, 12 to 15 inches thick, 40 feet long and extending all the way across the pit. It serves for the support of the masonry the weight of which is to resist the pressure of the anchor plate. This body of masonry being about 40 feet long and 12 feet wide need not be very deep to offer a

sufficient resistance to the pressure of the anchor plate. All of the timbers are copiously grouted with thin lime mortar for the purpose of preservation. They will never rot, as they are deeply buried with ground and entirely excluded from the air".

In summation, Roebling states: "What I claim as my original invention and wish to secure by Letters Patent, is: The application of a timber foundation, in place of stone, in connection with anchor plates, to support the pressure of the anchor chains or cables against the anchor Masonry of a Suspension Bridge - for the purpose of increasing the base of that masonry, to increase the surface opposed to pressure, and to substitute wood as an elastic material in place of stone [emphasis added] for the bedding of anchor plates - the timber foundation either to occupy either an inclined position, where the anchor cables or chains are continued in a straight line below ground, or to be placed horizontally where the anchor cables are curved".

White pine and white oak lumber, therefore, were of great importance in the construction of the four aqueducts that Roebling built for the Delaware and Hudson Canal Company in the period 1846-1850. One of those remarkable bridges, the Delaware Aqueduct, is still in use today, as a motor vehicle bridge, 172 years after it was built.

\* Note: The length and the diameter of the cables on a suspension bridge, it is interesting to note, are a function of the ambient temperature, year around, of the location where the bridge is located. In warm weather, the cables are slightly longer and thicker than they are in the winter. These seasonal variations in the diameter and length of the cables are managed in the Roebling D&H aqueducts by (1) the cast iron cable saddles at the top of the piers, which are just wide enough for the cables in warm weather, and (2) by the system of white oak timbers above the anchor plate in all four of the aqueducts, which is elastic enough to make possible the slight increase in the length of the cables in the summer. Were those seasonal variations in the diameter and length of the cables not possible, the support systems for the cables could be compromised, causing the bridge to collapse.

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91. Very nice photo of D&H No. 930, as posted on the D&H Railroad page on Facebook, November 15, 2022:



**Greg Flynn:** Definitely a graduate of the Loree rebuilding programs. A former road service Consol that's been set up for yard/switching service as its tender has been skinned down to the "clear vision" type. The outside ash pans were a popular modification added to a lot of older engines when they got their turns for rebuild at Colonie.

**Becky Whiting:** Class E-3A-51 originally built as an E-3a camelback in 1903-06 by ALCO or one of its corporate acquisitions but upgraded to a single cab with larger cylinders around 1924 by the D&H in Colonie during Loree's rebuilding program. Left service in the late 40's. Source <https://www.steamlocomotive.com/locobase.php?country=USA...>

**STEAM LOCOMOTIVE.COM:** Delaware & Hudson 2-8-0 "Consolidation" Locomotives in the USA

**Norman J. Barrett:** The work horses of the D&H!

**Steve Sconfienza:** Unusual. Looks like a Wootton firebox with a conventional cab.

**Geoff Ross:** Rebuilt from a Camelback in 1926. Rear cab and superheater added. From class E3a to class E53. Probably added those funky outside dumping ash pans when rebuilt.

92. Historical marker unveiled on November 19, 2022, at the Oneonta roundhouse site; Facebook post:

**Delaware and Hudson Railroad: Pat Skell:** “The old Round House location in Oneonta got a Historical marker today !!!”



**Philip Arony:** Nitpicking: serviced and stored TRAINS? Not locomotives? [Yes, I agree with Philip. Trains were not stored and serviced in roundhouses.]

A black and white illustration. In the background, a person is standing in a doorway, looking out. In the foreground, a large, stylized figure stands with its back to the viewer, looking towards the doorway. The figure has a large, rounded head and a long, thin body. The background is filled with horizontal lines, suggesting a landscape or a wall. The overall style is graphic and minimalist.

*Mail from our favorite  
source - our readers!*

The Lackawanna & Wyoming Valley Railway Historical Society 2023 Railway calendar is an historically important – and beautiful – document that commemorates the 50th anniversary of the Lackawanna and Wyoming Valley Railway Historical Society (chartered by the National Railway Historical Society on November 11, 1973), as well as the 200th anniversary of the Delaware and Hudson Canal Company (chartered by the Commonwealth of Pennsylvania on April 23, 1823).

Five of the monthly photos are L&WVR photos (February, April, June, August, and October), six of the photos are D&H photos (January, March, May, July, September, and November); one of the photos (December) is a Delaware Lackawanna & Western photo. Nine of those photos are color photographs, and three are original B&W photographs. Five bonus photographs are presented following the monthly pages (two color and one B&W L&WVR photographs, one color and one B&W D&H photographs). The quality of all of these photographs is very high, as is the paper on which they are printed.

Throughout the calendar, important events in the history of the L&WVR, the D&H, railroads in America in general, as well as important events in local, regional, and American history are noted on individual days.

The subject of the full-page caption on the photograph on the front cover of the calendar (a D&H photo by John Rakowski, in the collection of Tony Verbyla, Sr., of the Wilkes-Barre yard in the mid 1960s) is the 200th anniversary of the D&H. The twelve monthly calendar photos and the

The history of the Lackawanna & Wyoming Valley Chapter of the National Railway Historical Society is presented following the December calendar page, and following all of the bonus photographs at the end of the calendar.

Thanks – we think  
from *Mike Bischak*

A new YouTube item by Dale Keklock, "D&H Pennsylvania Division Pics" (<https://www.youtube.com/watch?v=C8-VIUvU9u8>), showcases some of the D&H photos scanned for our archives. A copy of the D&H 1916-1917 record photo scans was provided to the Carbondale Historical Society via Dr. S. Robert Powell.

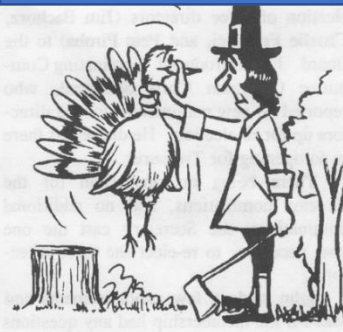
It is possible that this YouTube item will help promote the D&H and the BLHS, even though the photos were used without our permission, or apparently that of Dr. Powell and the Carbondale Historical Society. Happily, the photos do carry a "Courtesy Bridge Line Historical Society" notation, but the video is lacking any address or promoting of the BLHS.

**D&H book sold out**  
*from Dick Silber*

**Rudy Garbely** has informed me that his "Delaware & Hudson, The Final Years 1968-1991" book is totally sold out; the run was 1000 copies. He is contemplating a limited reprint of about 200 copies in 2023. Garbely Publishing has also recently released two new books: "Diesel Railroad Tugboats, Volume 1, East Coast", and "New York Susquehanna & Western, Volume 1: Jersey City to Passaic Junction". I do not know their prices as of this writing, but Rudy has them in stock.

[illegible]

Theft by unscrupulous characters (whose identity is known) of SRP photo files



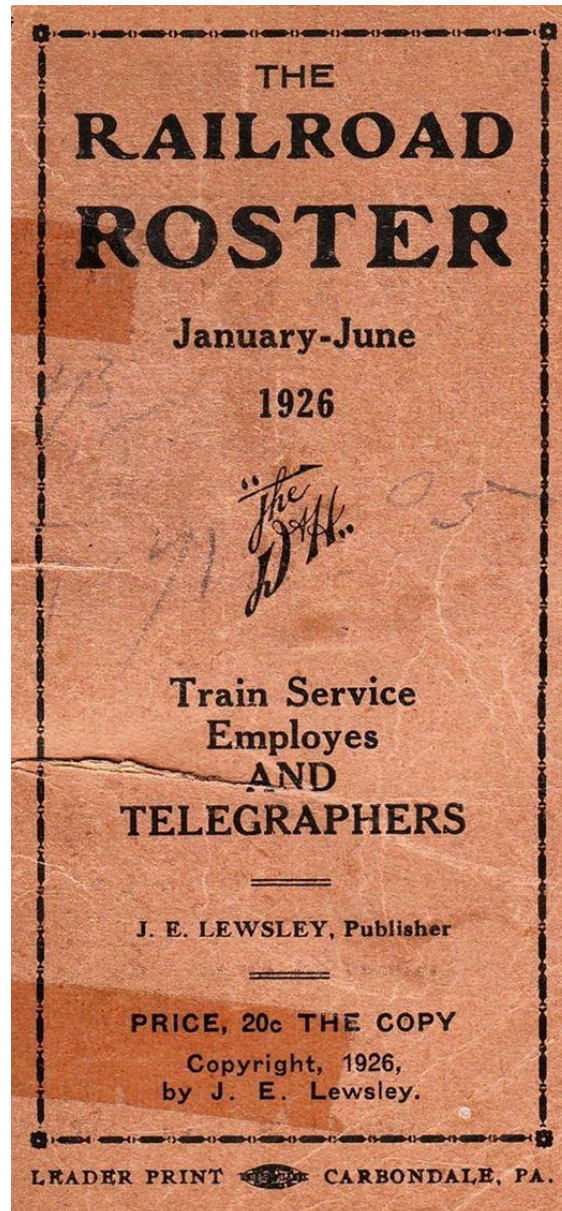
Page 5:

**Top:** Wisconsin Central visits the NECR: Canadian National #3069, a Wisconsin Central heritage unit, led train M324 from Montreal to St. Albans on October 4, 2022. The sun was far enough east to show some light on the nose, matching the fall colors that surrounded the train's journey through northern Vermont. The train is seen here crossing Route 78. Photo by Harrison Smith.

**Bottom:** D&H train NE87 emerges from the tunnel at White Haven, PA, ca. March 1977. Caption and photo by Bob Bahrs.

94. SRP posted on Facebook a photo of the front cover of "The Railroad Roster January-June 1926 Train Service Employees AND TELEGRAPHERS" during the week of November 16, 2022; 50 t 50 "likes" in two days:

One thousand and forty-six D&H Train Service Employees and Telegraphers worked on the Pennsylvania Division of the D&H in the period January-June 1926. To read / study / consult this document, go to [InternetArchive.org](https://www.internetarchive.org) and search for "D&H Railroad Roster 1926 (Pennsylvania Division)"



95. Lanesboro viaduct photo, posted on Facebook in the D&H Railroad group, on November 25, 2022 by RR Trax Studios:

**RR Trax Studios:** Here's a nice view from an old glass lantern slide of the Starrucca bridge looking south on the D&H main line at Lanesboro, Pa. The caption notes "stone quarries in distance" (still there today, according to Google Earth). Also, note the Hall lower quadrant semaphore signals, typical of the D&H at that time. Dated 1912.



Lanesboro Viaduct, 1912

**Stan Nordberg:** Yes great photo & yes those stone quarries are still there & lots of Rattle Snakes live there.

**Toby Fitch:** This scene never gets old.

**Geoff Ross:** Now a recently restored rail trail.

96. D&H Train, Fan trip 1975, photo posted by Jason Booser on Facebook, December 4, 2022:

**Chris Lynch:** Middle Granville NY, September 20, 1975

**Larry Eastwood:** Was on this trip in 1974 or 1975 when we stopped here for photos!!



97. D&H First Aid kit, photos posted by Paul Hildreth on Facebook D&H Railroad group, December 6, 2022:

**Paul Hildreth:** Picked up this first aid kit at the show in Albany on Sunday. Missing a few items but the guy said it was from the 30's.



98. Photo of A&S railroad lantern, posted in D&H group on Facebook by Bern Martin, December 7, 2022:

**Ben Martin**: Albany & Susquehanna Railroad (Delaware & Hudson predecessor)

**Carbondale Historical Society & Museum, Incorporated**: The A&S was not a "predecessor" of the D&H. The D&H, which was incorporated in 1823, began rail operations in 1829. Construction of the A&S (between Albany and Schoharie Junction) began on April 19, 1851, and the line was completed to Binghamton in 1869. The D&H leased the A&S on February 24, 1870, for 99 years. The A&S was merged into the D&H on July 2, 1945.



**Ben Martin**: 19th century Fixed Globe is wheel cut for the "A&S" (Albany & Susquehanna) and was manufactured by the Kelly Lamp Company from my private collection

99."Waterpower on the D&H Gravity Railroad" by S. Robert Powell, *Bridge Line Historical Society Bulletin*, January 2023, pp. 16-17, 20):

*For the Record*

**Water Power on the D&H Gravity Railroad**

by *S. Robert Powell, Ph.D.*

Water power was used on the inclined planes of the D&H Gravity Railroad in three areas: the light track from Honesdale to Waymart (Planes Nos. 14-17); Planes Nos. 1 and 28 in Carbondale; and Plane No. 21 in Archbald. All of water wheels on all of those planes were undershot wheels, with the exception of one of the two wheels on "New Plane No. 28", which was an overshot wheel.

When the five inclined planes on the light track from Honesdale to Waymart were opened in 1843, four of them (Nos. 13, 15, 16, 17) had stationary steam engines at the heads of the planes, and one of them (No.14) had a water wheel at the foot of the plane. James Archbald's original plan was to have the engines on all five of these planes powered by water wheels, but water rights were either too expensive (Plane No. 13) or could not be obtained (Nos. 15, 16, 17).

James Archbald continued to advocate for water wheels on Planes 13, 15, 16, and 17, and by 1848, three more of the planes (15, 16, and 17) were powered by water wheels. A water wheel was never installed on Plane No. 13 because water rights on that plane, said the D&H, were prohibitively expensive. In the period 1848-1868, the water wheels on Planes 14, 15, 16, and 17 (there were two water wheels at the foot of Plane No. 17: an upper wheel and a lower wheel) were replaced, one by one, with stationary steam engines. The last of these planes to have its water wheel replaced with a stationary steam engine (built by the Dickson Works in Scranton, and operated by Silas Hoyle as Head Engineer and Walter Bryant, Assistant) was No. 14, and that took place in 1868. (The source for our knowledge about the motive power on the planes on the light track from Honesdale to Waymart in the early years of those planes is the February 1847 letter of James Archbald to D&H President John Wurts; also an article in the *Carbondale Advance* of February 8, 1868).

**Where did the water come from to power these planes?**

D&H feeder ponds (e.g., White Oak Pond) and streams flowing down from

highlands to lowlands (e.g., Van Tuyl Brook), among many other feeder ponds and brooks near the D&H Gravity Railroad between Waymart and Honesdale, were used as the water sources. In recent years, most of those feeder ponds, which provided most of the water to power water wheels at grist mills and saw mills for hundreds of years, and which were built by knowledgeable farmers and lumbermen who knew how to build a dam that would last forever, have, regrettably, been drained. The foundations of the dams have been blown up by imperfectly educated, selfish, or nefarious urban dwellers who have moved "to the country". The water from most of those feeder ponds and from small brooks originating on the Moosic Mountain (e.g., Van Tuyl Brook) flowed into Stanton Pond (later known as Lake Lodore), and from there into Van Auker Creek, which merges at Prompton with the West Branch of the Lackawaxen River (water from the Prompton Dam), which flows into Honesdale. After passing through Honesdale, that same water powered the D&H canal locks from Honesdale to Hawley to the Lackawaxen River to the Delaware River.

In addition to the water wheels on the light track between Honesdale and Waymart, there were also water wheels on Planes No. 1 and 28 in downtown Carbondale, and on Plane No. 21 in Archbald.

**Planes Nos. 1 and 28 in downtown Carbondale**

The question of water wheels and water power on the Gravity Railroad in downtown Carbondale was raised initially in 1902, following the close of the Gravity Railroad and the removal, by the D&H bridge builders, of the "highworks" (Level No. 28 between the head of Plane No. 28 and the foot of Plane No. 1) Workers discovered, as they were removing the abutments which supported those highworks and formed a wall for the embankment of culm, a giant water wheel, made of oak and pine, that had been buried on the site where the D&H coal pockets at the foot of Salem Avenue would at that time be erected.

The discovery of this buried water wheel resulted in eight articles in Carbondale newspapers about that wheel. (The complete texts of all of those articles are in the Gritman collection in the archives of the Carbondale Historical Society.) As a result of those eight articles, many "street-corner experts" came forward with various explanations about the buried water wheel. At the same time, fortunately, an authentic expert, William Johnson, Sr., who began working for the D&H in 1844 and who helped erect the buried waterwheel in question, came forward (*Carbondale Leader*, February 8, 1902, "A Builder Speaks About the Wheels..."). We have read those eight articles, and here is what we have learned:

**Waterwheel on Plane No. 1**

When the Gravity Railroad opened in 1829, there was a large upright stationary steam engine at the head of Plane No. 1. In 1845, that upright engine was replaced by a pair of horizontal engines and a fifty-foot water wheel, which was operated by Eulis Campbell. This wheel was used only in the spring and fall of the year when there was an abundant supply of water available to power the wheel. This water was taken from the former Durfee sawmill pond on Canaan Street.

When the water wheel at the head of Plane No. 1 was no longer used, part of that wheel was used to make a bookcase that was owned by J.J. Alexander in 1902. About the bookcase, Mr. Alexander reported, "It is made of good heavy oak and I think a great deal of it now. When Charles Wurts was going to leave town, I

*continued on page 20*

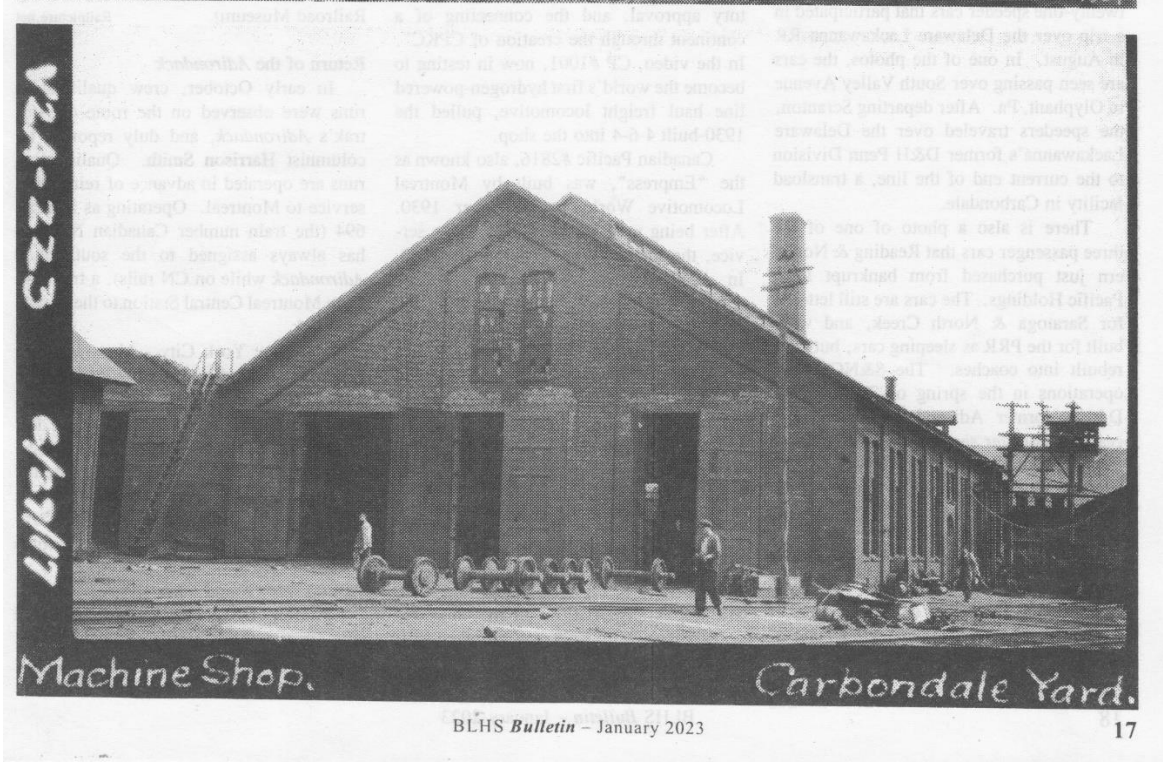
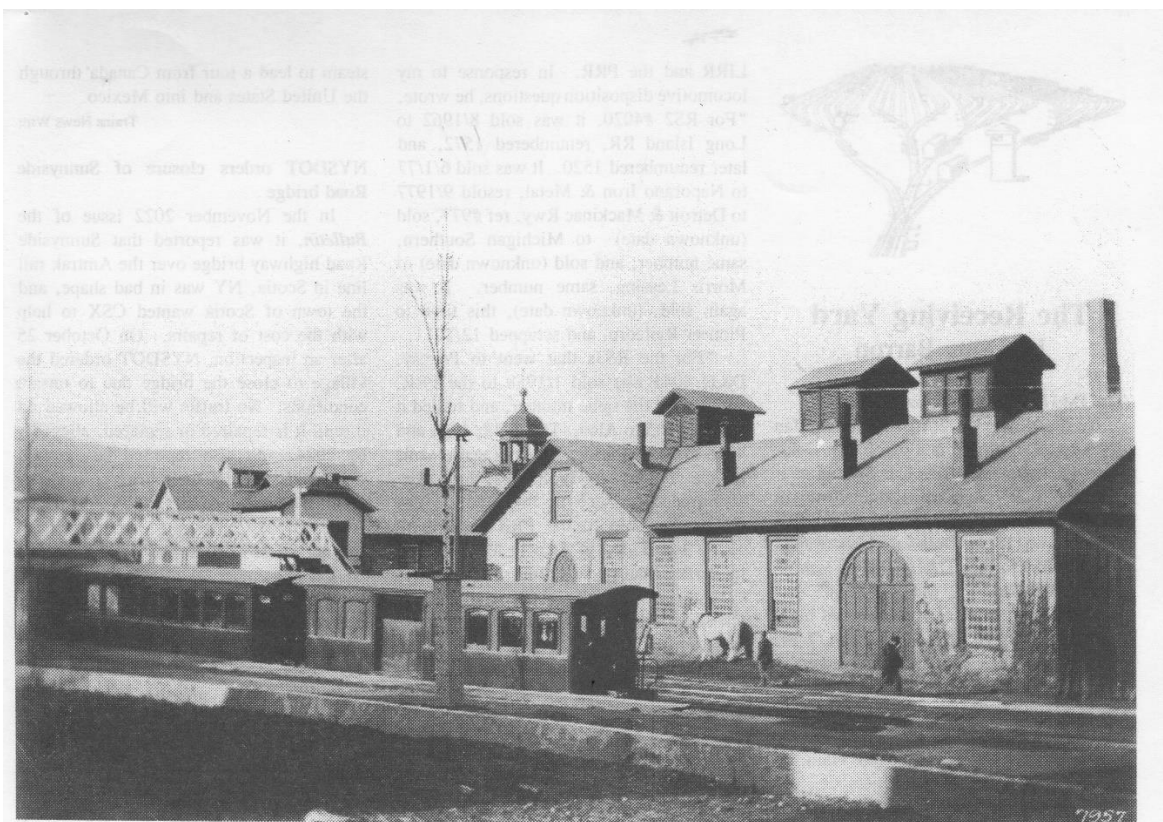
*Page 17:*

**Top:** D&H Gravity RR at the foot of Plane #1, plus the Carbondale, PA shops. BLHS Archives scan by **Mike Bischak**. Undated; likely in 1870s or 1880s.

**Bottom:** The Machine Shop for the D&H in Carbondale, PA yard, as seen by the company photographer on June 27, 1917. BLHS Archives scan by **Mike Bischak**.

16

BLHS Bulletin – January 2023



On October 26, 2022, a Silver Dollar City Steam Train near Branson, Mo. derailed going around a curve, sending seven people to a local hospital. There were no life-threatening injuries.

The narrow gauge train ride is known for being a long-time staple at the theme park, and has been in operation since 1962. There were about 160 people on board the 4-car train when it careened off the tracks. Passengers said, "The train was shaking real bad after hitting a bump" as it was going around a curve. Steam engine #504 stayed upright and on the rails, but its tender and three of the four coaches derailed onto their sides. Missouri's Amusement Ride Safety Unit is investigating the incident.

Springfield New-Leader

*There was a steam train in Silver Dollar City at Pigeon Forge, Tenn. in the 1980s. The train had a "helper" diesel switcher enclosed in a boxcar behind the engine, and acted as a helper. I was told it was a former B&M switcher, and it sounded like an EMD. That theme park is now called Dollywood, and it no longer lists a train ride as an attraction. I don't think they moved the whole 12 inches-to-the-foot trainset to Branson, since the steam engines there now are quite real, and of Czech and German origin. But what happened to that ex-B&M switcher? ... JB*

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#### For the Record from page 16

thought perhaps he might not want to take the case along, it was so heavy. That was about 1866, I had quite a number of books on hand. I asked Gus Wurts to go to his uncle and see if he couldn't get the bookcase. He succeeded in doing so for \$25, which I gladly gave, and the bookcase has been in my possession since". (That bookcase is now owned by the Mitchell Hose Company, Carbondale.)

#### Waterwheels on Plane No. 28: "Old Plane No. 28 (1845/46-1853)"

When the Gravity Railroad opened in 1829, Plane No. 28 did not exist. It was established in 1845/1846, and was powered by a water wheel with water from the Carbondale Canal. The water for the Carbondale Canal came from two sources: the Lackawanna River and Fall Brook. The raceway from the Lackawanna River went under the Van Bergen building, Dun-

daff Street, and then into the Carbondale Canal. The raceway from Fall Brook ran from a dam just below the Fallbrook Falls, and flowed west of present-day Fallbrook Street and then through Carbondale's West Side before it descended to the valley floor and entered, ultimately, the Carbondale Canal. Once under the D&H steam-line tracks, the Carbondale Canal flowed generally north-south through downtown Carbondale. In so doing, it passed twice under the loaded track of the Gravity Railroad, twice under the D&H steam line tracks, and once under Eighth Avenue, before reentering the Lackawanna River, in three different locations in South Carbondale. Old Plane No. 28 served up to 1853, when New Plane No. 28 was built.

#### New Plane No. 28 (1853-1859)

There were three waterwheels here: one in the period 1846-1853, and two (an overshot wheel, fifteen feet in diameter and ten feet abreast, and a second wheel, slightly smaller and geared to the other wheel) in the period 1853-1859. It was near New Plane No. 28 that the coal pockets were later built, and where the buried waterwheel and wheel pit were found in 1902.

These water-powered planes on "old" and "new" Plane No. 28 were used to transport coal to the foot of Plane No. 1 from (1) the newly opened mines in the Carbondale area (the Powderly mine, beginning in 1845; the Fall Brook mines, beginning in 1846); and (2) the mines in Archbald, the coal from which was now being shipped to Carbondale over the newly-established level from the top of the hill at Archbald to the Plane No. 28 area in Carbondale.

#### Waterwheel on Plane No. 21

The third area of the Gravity Railroad where water power was used was in downtown Archbald, on Plane No. 21.

Plane No. 21, also known as C Plane, was the first of the southbound planes between Archbald and Olyphant. When this plane was installed in 1859, the motive power on the plane was a waterwheel that was powered by a canal running from White Oak Run, which was parallel to the Lackawanna River. In an article on the Gravity Railroad in Archbald that was published in the *Carbondale News* of January 10, 2001 (p. 7) we read: "The waterwheel at C Plane was powered by a canal which connected White Oak Creek to the Lackawanna River at a point where the

river bends at the base of C Bush [Plane No. 21]".

In 1865, this waterwheel at the foot of Plane No. 21 was replaced with a stationary steam engine located at the head of the plane. At that time, the canal was filled with earth, stone, and cinders. Later in the nineteenth century, tracks of the New York, Ontario and Western Railway were laid on the former D&H Canal basin in downtown Archbald.

Over the years, various persons with an interest in the D&H Gravity Railroad have made incorrect statements about the *terminus post quem* (beginning date) and the *terminus ante quem* (closing date) of the use of water power on the D&H Gravity Railroad. The final word on the question of the final date is given in brief notice that was published in the *Carbondale Advance* of Saturday, February 8, 1868, p. 3, as follows: "The Del. & Hud. Canal Co. have just put a stationary steam engine in at Plane No. 14 on their railroad, in place of the old water power. The engine was built at the Dickson Works, Scranton, and has been placed in charge of Silas Hoyle as Head Engineer and Walter Bryant, Assistant. The company now works the cars on all their planes by steam power. (*Herald, Carbondale Advance*)"

To summarize, those are the answers on the question of waterwheels on D&H Gravity Railroad. In the period 1845-1868, Planes 1, 14, 15, 16, 17, 21, and 28, at various periods, as we have described above, were powered by waterwheels.

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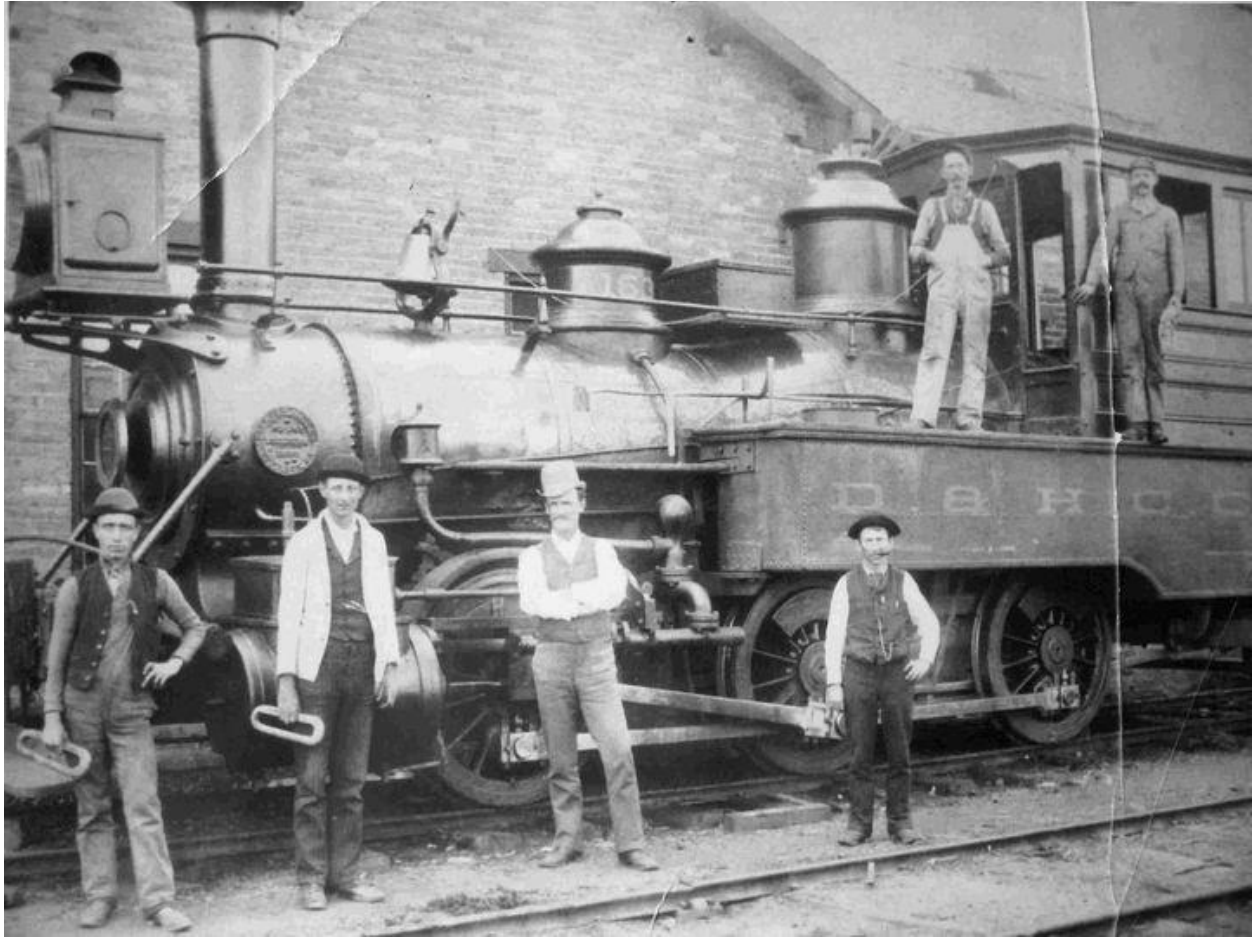


Page 21:

**Top:** D&H RS3s 1536 and 1508, both former B&M units, at the Rensselaer, NY station platform. Hugh Strobel photo on February 17, 1975.

**Right:** D&H PA #18 with the southbound *Laurentian*, rolling through the yard south of the station at Saratoga Springs, NY. Date not noted; photo by Hugh Strobel.

100. Rare photo of D&HCCo No.163 (?) that was posted on Facebook, December 14, 2022, in the Delaware and Hudson Railroad group by Burdock Gordon with this caption: "Couple years ago Whitehall N.Y."

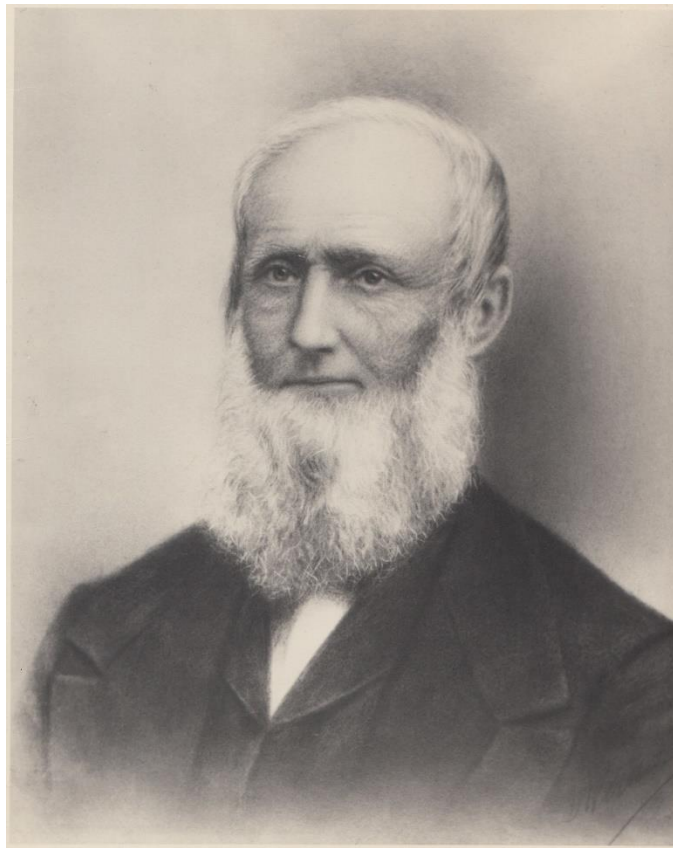


101. *Building a Railroad in the Wilderness, 1827-1829*: This article by SRP will be published in the March 2023 issue of the *Bridge Line Historical Society Bulletin*:

## **Building a Railroad in the Wilderness, 1827-1829**

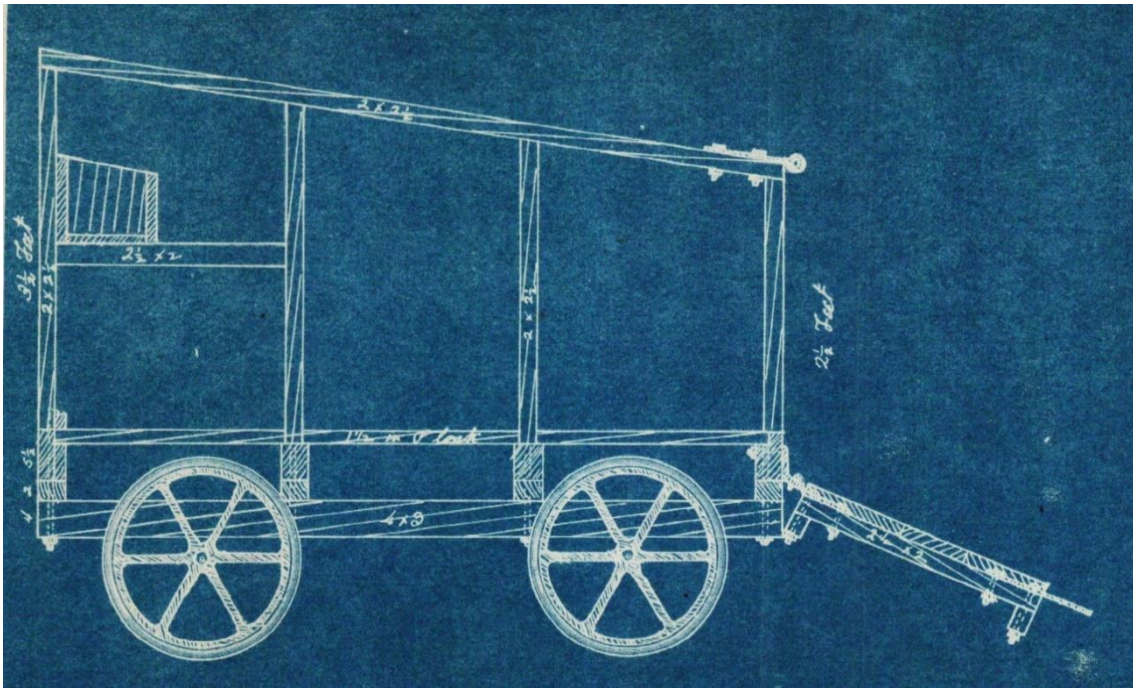
By S. Robert Powell, Ph.D.

“We have a virtually unlimited quantity of anthracite coal at our disposal. We have customers in New York who need our coal and who will buy it. To get our coal to market, we’re now going to build a rail-road from Carbondale to Honesdale, where our coal will be loaded into canal boats and taken to New York. We have here all the lumber that we will need, and we have the manpower to build a rail-road to get our coal to Honesdale. Where and how do we begin?”



*John B. Jervis*, 1795-1885, designed and supervised the construction of five of America's earliest railroads, among which was the D&H Gravity Railroad (1829 configuration). Jervis also designed, in 1832, for the Mohawk & Hudson Railroad, the first locomotive with a swiveling 4-wheeled front bogie truck, the *Experiment*. With four of its six wheels mounted on a swiveling truck, the *Experiment* could reach speeds of up to 60 miles per hour.

**Conduct a Survey, Propose a Route.** On April 4, 1827, John B. Jervis, who was named Chief Engineer of the D&H on March 14, 1827, was directed to survey and locate a railroad from the proposed terminus of the canal, near Dyberry Forks, to the mines at Carbondale. On October 22, he presented a report, which was submitted to the Board of Directors on October 24. He recommended a double-rail railroad (a single track with a passing siding in the middle of each of the five inclined planes); timber rail capped by iron plates of rolled iron—not cast iron; five planes each having an ascent of from one hundred and twenty to two hundred and five feet, separated by short lines of levels of moderately declining road; chains not hemp ropes to pull the cars up the planes; five stationary steam engines at a cost, inclusive of the expense of procuring water, of \$24,500 in all; for the descent from the summit to Honesdale and to retard motion on the three steep descending grades, he proposed a simple contrivance of sails so connected with the gearing as to hold the cars to a low and safe velocity; for the nearly level distances—about 11 miles—between the planes the use of seven steam locomotives of 6 or 7 tons was advocated; inclusive of railroad iron, bridges and machinery for stationary power, Jervis estimated the cost of the railroad would be \$178,228.13; 320 railroad waggons would be needed to transport 540 tons of coal daily, and estimated the daily cost of operation as \$159.32, a per ton cost of 29.5 cents or 1.8 cents per ton mile. Jervis concluded his report with these words: “Successful accomplishment will form a new era in the internal improvements of our country.” [emphasis added] (*Century of Progress*, pp. 43-46)



*Horse Cars* were used on the Gravity Railroad, in the period 1829-1845, to move horses from the head to the foot of the levels between Waymart and Honesdale.

**Manpower and Horsepower.** “We need men who know how to work in the woods, and we need teams of horses, and we have both right here, in Carbondale.” Work on the construction of the D&H Gravity Railroad was put under contract on November 25, 1827. The work was under the supervision of engineers John B. Mills (nine contractors and crews) and James Archbald (eleven contractors and crews). From *Ruth*, p. 17, we learn: “In all, 31 contractors and crews worked at building the railroad between March 1828 and June 1829.” Account books show that six primary contractors used over 300,000 linear feet (more than 56 miles) of lumber in building trestles and tracks for the railroad. [John Torrey said that trestles supported about one-third of the length of the railway.] Another ten miles of beams were used as ‘bracing.’ Construction of the road was completed in June of 1829. The construction cost was \$3 million.

**Build Trestles.** “We will construct the rail line, for the most part, through heavily forested land and over a mountain. As such, in order to minimize construction costs, there will be many trestles.” On this question, Jason Torrey, in 1882, said the following: “A plan of construction was adopted, designed to accomplish the object sought, with as little outlay as practicable. As at least nine-tenths of the entire distance was through unbroken forests, where timber could be very cheaply obtained, all heavy embankments for grade were dispensed with, and as far as practicable, without too short curves, heavy excavations were avoided. When the grade was more than four feet above the natural surface, trestle work of timber was used, and in some parts where the grade was still nearer the surface, wooden posts were placed upright in holes dug in the earth three or four feet in depth, and broken stones filled in around the posts—the tops of the posts being sawn off at the proper height to receive the cross ties upon which the rails were to rest. In other cases where the grade was near the surface, the cross ties, which were usually ten feet distant from each other, were supported by stone piers under each end.”

**Use Wooden Rails and Strap Rails.** Jason Torrey further noted: “Upon these cross ties were placed wooden rails of hemlock timber, generally six inches in thickness and twelve inches in height, and either twenty or thirty feet long, so as to extend across two or three of the spaces between the cross ties.” The rails were made fast to the ties by wooden keys, or wedges, and in such position that the space between the rails should be just the width of the gauge adopted, which was four feet three inches.

“Where can we get the strap rails and other materials that we’ll need to build this railroad?” In 1823, Horatio Allen graduated from Columbia University and was appointed Assistant Engineer of the Delaware and Hudson Canal Company. In 1827 he resigned from his position with the D&H and made it known that he was going to England to study there the emerging railroad technology, particularly locomotives. At that time, he was authorized by the Directors of the D&H and John Jervis to serve as the agent for the D&H while in England, and (1) to investigate the provision of three (possibly four) locomotives and to purchase one as a sample (“the locomotives are not to exceed four tons on four wheels and 6 tons to 7 tons on 6 wheels but a four wheeled locomotive is

preferable”), (2) to investigate chains for the inclined planes, (3) to source strap rail (“to be trapezoidal in section 2 ½ inches on the base and 2 inches on the top with ½ inch thickness; the top corners may have a radius of three-sixteenths of an inch unless this increases cost and time”, and (4) to investigate and report on the management of wheels on the same axel and purchase samples.

Horatio Allen went to Great Britain. At Merthyr Tydfil in South Wales, he ordered made the strap rails for the rail line to Honesdale from Carbondale, but they were so poorly made that he refused to take them. He then went to Wolverhampton, England, and contracted with W. L. Sparrow of Temple Street, Wolverhampton, Staffordshire for 390 tons of rolled wrought iron strap rail: 15 ½ feet long, 2 ½ inches wide, and ½ inch thick. The D&H needed no less than 16 miles of strap rail for the 1829 configuration of the Gravity Railroad. If each piece of strap rail was 15 ½ feet long, the D&H would need, therefore, 5,451 strap rails to open the road on October 9, 1829. The strap rails ordered were then manufactured and shipped to America, where they were received on or before June 1828. (Strap rails were used on the D&H Gravity Railroad until 1858-1859, when they were replaced with standard T-Rails.)

The need for railroad iron in the northeastern United States continued to be strong well into the nineteenth century. On Tuesday, October 5, 1853, for example, 5,020 tons of railroad iron from England arrived in New York. In the *Carbondale Transcript & Lackawanna Journal*, October 7, 1853, p. 3, we read: : "RAILROAD IRON.—On Tuesday no less than eight vessels arrived at New York from England with cargoes of Railroad Iron, viz: Ship *Medallion*, 893 tons; ship *Amelia*, 845 tons; ship *Moro Castle*, 782 tons; ship *Champlain* 745 tons; barque *Florence*, 485 tons; barque *Gleanor*, 350 tons; barque *Rainbow*, 500 tons; and the barque *Austin*, 420 tons—making a total for the eight vessels of 5,020 tons”.

**Use Rolled Iron Rails.** “Upon the top, and at the inner edge of these rails, flat bars of [*rolled not cast*] iron, two and half inches wide and half an inch thick, were laid and made fast by large screws through holes for that purpose in the iron bars. After a little experience the hemlock rail was found to be too soft for a firm bed for the iron bars, and strips of beech [or oak] 1 ½ to 2 inches thick and three to four inches wide were spiked to the top of the hemlock rail, and the iron bars fastened upon these beech strips. After a very little time the use of screws to fasten the iron bars was discontinued, and iron spikes used instead.” (*Torrey*, 1882)

These strap rails were punched with slotted holes countersunk for the heads of the screws with which they were to be fastened to the wooden rails and the upper corners of the bars were rounded in rolling to a quarter circle having a radius of three-sixteenths of an inch. One end of each bar was finished with a tongue five-eighths of an inch wide and three-fourths of an inch long which fitted into an equivalent recess in the adjoining end of the next bar. [Using strap rails, as most railroaders know, is problematical, because their ends can curl up and form “snake heads” which can pierce the floor of a rail car.]

**Stationary Steam Engines Will Power the Planes.** Five stationary steam engines were purchased by the D&H from Messrs. Abeel & Dunscomb\* (375 Water Street, New York) and installed on Planes Nos. 1-5, and were ready to go when the line opened. Horsepower of these five engines: Plane No. 1, 30 hp.; Plane No. 2, 35 hp.; Plane No. 3, 35 hp.; Plane No. 4, 25 hp.; Plane No. 5, 35 hp. In his letter of February 5, 1847, to President John Wurts, James Archbald reported that the engines on Planes Nos. 1-5 “have all been increased in power and are to be still further increased this [1847] winter.” (The stationary steam engines that were needed by the D&H in the period 1845-1857 were purchased from the William Bourdon Foundry, 102 Front Street, Brooklyn, NY; the stationary steam engines that were needed by the D&H from 1857 on were purchased from the Dickson Manufacturing Company, Scranton—from whom the D&H bought sixteen 75-horse power engines in 1857. The several waterwheels that were used to power various D&H inclined planes in the period 1845-1868 were all made locally.)

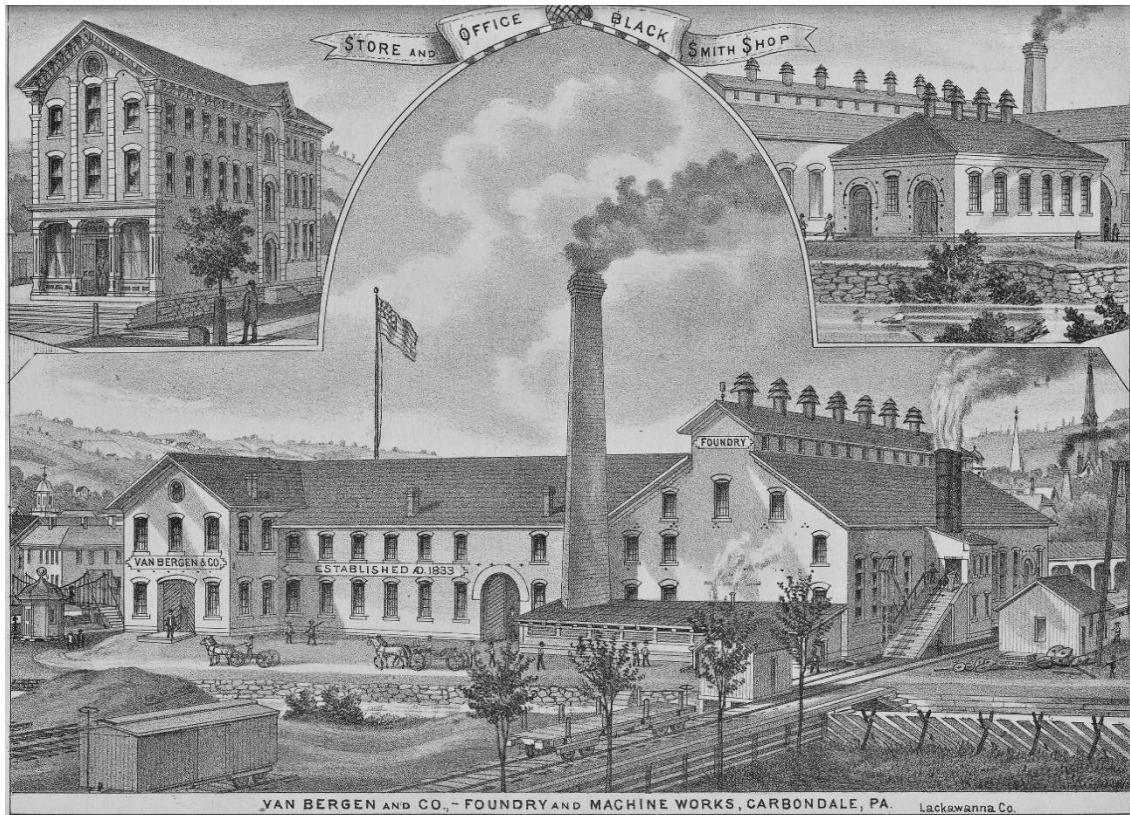
**Use Chains to Move the Cars on the Planes.** “Where can we get chains?” In addition to procuring the necessary strap rail needed by the D&H in order to construct its Gravity Railroad, Horatio Allen also purchased in England for the D&H the chains that were needed to pull Gravity coal cars up and then lower them down the eight planes in the 1829 configuration of the line. (Chains were used for that purpose only from October 9 to the end of the 1829 shipping season. The chains broke repeatedly. When the Gravity Railroad opened in 1830 hemp ropes were in place on the planes. They were used successfully until the 1859 configuration of the Gravity line was installed and the hemp ropes were replaced with Roebling’s wire rope, (1 ¼ inches in diameter; initially made of iron, later made of low-carbon steel.)

**Lowering the Cars on Planes Nos. 6, 7, and 8 Will Be a Complicated Process.** John Jervis had a plan for braking on the down planes: “His [John Jervis] ingenuity was particularly apparent in his devising of a supplemental braking system for use on inclined planes. A trip of loaded cars would already be slowed somewhat in its descent because the chain to which it was attached would run up to a pair of large drums on the stationary steam engine, and around the drums several times (in the fashion of a double-pulley), then back down the incline where it would be attached to a trip of empty cars. As the loaded cars descended, their weight would pull the empty cars up the plane, and the resistance supplied by the empty cars would partly check the fall of the loaded cars. To slow them more, Jervis designed what he called a ‘pneumatic convoy’. Descriptions of this device vary, but most sources agree that it amounted to a 12-foot fan with eight blades, standing upright, geared to one of the stationary steam engine drums so that as the drum turned, it turned the fan at an even faster rate. As air resistance had a braking effect on the fan’s moving blades, the effect was transferred to the drum, then to the chain wrapped around it, and ultimately to the descending coal cars. For good measure, Jervis also instructed that at least one coal car in each trip be equipped with a conventional friction brake.” (*Ruth*, p. 13)

**Line the Fire Boxes with Fire Bricks.** “Where can we get fire bricks” In the collection of the Carbondale D&H Transportation Museum there are fire bricks that are marked “RUFFORD / STOURBRIDGE”. These bricks, which were used to line the interior of the fire chamber of each

of the stationary steam engines on the Gravity Railroad, were found by John V. Buberniak at the head of Plane No. 7 on the Gravity Railroad. It is not yet known when the D&H began to line the fire chambers of the stationary engines with these Rufford bricks. Possibly Horatio Allen ordered Rufford bricks for the D&H during his trip to England? Possibly the D&H began using Rufford bricks at a later date? In any event, these Rufford bricks were made in Stourbridge, England, and were imported to America and used in the engine houses on the D&H Gravity Railroad, most probably from 1829 on.

Rufford fire clay, it should be noted, has a world-wide reputation, and its importance in the manufacture of fire-bricks, glasshouse pots, and a variety of other purposes in connection with the industrial arts is well known. Its chief value consists in its refractory character, which enables it to resist the highest temperatures without melting. As many as forty million fire bricks are produced annually in Rufford.



*Van Bergen & Co. Foundry*, Carbondale. From 1833 on, all of the wheels and metal components of D&H freight and passenger cars made in Carbondale were made in the Van Bergen Foundry. The Van Bergen building shown in the upper left corner of this engraving still stands today. The building, with gray stone lintels and sills, is 100 feet long, 28 feet wide, and three stories high. The Van Bergen company offices and show rooms were in this building.

**Make Coal “Waggons” of Wood.** Up to 1833, there was not a foundry in Carbondale that could produce wheels for Gravity coal “waggons”—which meant that the wheels needed either had to be purchased in New York or imported from England. From 1833 on, all wheels for Gravity cars were made in Carbondale. In *Hitchcock*, Volume II, p. 329, we read: "The first foundry [in Carbondale] was established in the village in 1833 by Alanson Reed, a Methodist preacher, and Abiran Guernsey, proprietors. It was located on Church and Foundry Streets, and was principally employed in casting wheels for the Delaware & Hudson cars. Reed & Guernsey dissolved partnership February 14, 1834, the firm becoming Eggleston & Reed, William Eggleston having purchased an interest. Later the firm became Eggleston & Wilbur, who in August, 1837, sold to Pierson & Co., who operated the foundry as the Luzerne County Stove Foundry. Later the firm became Pierson & Benjamin, T. Benjamin & Co., and on April 3, 1873, J. B. Van Bergen & Co." (Initially, there were 275 coal waggons, each with a capacity of 2 ½ tons on the Gravity Railroad. When the road closed in 1899, there were on the line 4,600 coal cars, each with a capacity of 5 tons, and each with 8 wheels and link and pin couplers.)

**Use Steam Locomotives on the Levels.** “Where can we get steam locomotives?” Horatio Allen also ordered locomotives for the D&H while he was in England. Throughout his life, Horatio Allen said that he ordered three engines for the D&H. Others have said that he ordered four. Much has been written on this question and we will not focus here on that question.

Remarkably, less than two years after construction began, in March 1828, the D&H Gravity Railroad from Carbondale to Honesdale opened for business.

And so, a body of determined and talented men, guided by intelligent engineers and enlightened leaders and managers with a plan, built a railroad in the wilderness to transport millions of tons of anthracite coal from the Lackawanna and Wyoming Valleys in northeastern Pennsylvania to a canal in Honesdale. It was an astonishing engineering achievement. On Friday, October 9, 1829, there surely must have been more than a few of the builders of that rail line in the crowd at the foot of Plane No. 1 in Carbondale who, bursting with pride and with broad smiles on their faces, watched come alive the railroad that they had built in the wilderness.

\* \* \* \* \*

\*Abeel & Dunscomb’s foundry not only supplied the D&H with stationary steam engines for the 1829 configuration of the line, but also served as a demonstration venue for one of the first two locomotives that were imported from England by the D&H. In Philip Hone’s diary for Wednesday, May 27, 1829, we read: “I went to Abeel & Dunscomb’s foundry to meet a large party of gentlemen, who had assembled by invitation to see one of the new locomotive engines in operation, which was recently imported from England for the use of the Delaware & Hudson Canal Company, and which had been temporarily fitted under the direction of Abeel & Dunscomb. Among the visitors were the lieutenant-governor, chancellor, attorney-general, judges, senators, members of

Assembly, and many friends of the undertaking. / The second locomotive steam engine which was imported for the Delaware & Hudson Canal Company was set in operation this afternoon at the works of Messrs. Kemble, in the presence of a large party of gentlemen, and succeeded as well as the one I saw yesterday at Abeel & Dunscomb's."

Garret B. Abeel was a major figure in the early history of the D&H. On January 7, 1825, subscription books were opened for the purpose of receiving subscriptions to the stock of the D&H at the Tontine Coffee House in New York, Kingston (Middle District Branch Bank), and Goshen (Orange County Bank). The notice announcing the opening of the subscription books is dated December 2, 1824, and is signed by Philip Hone, Lynde Catlin, Jonathan Thompson, and G. B. Abeel. On March 8, 1825, Garret B. Abeel was elected one of the Managers of the D&H.

\* \* \* \* \*

102. PA Canal Society visit to northeastern Pennsylvania, Fall 2022:

## PENNSYLVANIA CANAL SOCIETY

2022 Fall Tour – October 28 - 30  
Delaware & Hudson Canal Company Gravity Railroad

### Invitation

This Tour is **ALL INCLUSIVE** – Five meals, two nights lodging, transportation, admission fees, etc. are all included. We'll be staying at Ladore Camp, Retreat, and Conference Center, PO Box G, 389 South St, Waymart, PA 18472, 570-488-6129

**Rooms:** Everyone is staying in Annex II. All rooms have a private bathroom and either two double beds, or a double and two single beds (for triple ups). In the lounge, there's a TV, kitchenette with a refrigerator, microwave, & coffee maker. The lounge doubles as a meeting room. Rooms are comfortable but sparse.

**All five meals** will all be in the dining hall at the Lodge at Ladore: Friday dinner, Saturday breakfast, lunch and dinner, and Sunday breakfast.

**A Note About Our Hosts:** Ladore is operated by the Salvation Army, a Christian organization, which welcomes all faiths and beliefs, however **no alcohol** is permitted on the premises.

\*\*\*\*\* Space is limited – register early \*\*\*\*\*



Gravity Passenger Car 43 at the Waymart Gravity Depot at Planes No. 12 & 18

**Transportation:** A 15 passenger van will get us around to various sites, Friday, Saturday, and Sunday.

**Friday Early Bird Tour: 3:00 PM** We'll meet where we are staying in Annex II at Ladore and use the van to travel to Hawley for a visit to Lock 31 and a tour of the Daniels Farmhouse that is in the process of being restored.

**Saturday Tour: 9:00 AM** The tour will leave the Lodge and arrive at our first stop at the Carbondale Historical Society and Museum, then on to the site of the first underground Anthracite mine, and Gravity Park. On the way to Waymart and the Gravity Depot, our guide, Dr. Robert Powell, will point out some of the routes of the Gravity Railroad on the west side of the Moosic Mountains. After a sit-down lunch at Ladore, the tour will continue with special permission to visit a fairly intact Plane No. 14, which has remains of a race for water that at one time powered the plane, the site of a stationary steam engine, and a loaded track crossing. From there we'll receive a guided tour of the Main Museum of the Wayne County Historical Society, which has a gravity passenger car and a full-size Stourbridge Lion, a replica built in 1932 by the D&H Colonie Shops from original plans.

**Sunday Tour: 9:00 AM** We'll use the van to visit Lock 36 on the D&H Canal.

Weekend Schedule

Friday October 28	3:00 - 6:00 PM	<b>Early Bird Tour</b> – Meet the van at Annex II where we will be staying. We will depart for a visit to D&H Lock 31 and tour the Daniels Farmhouse, circa 1820
	6:00 - 7:00 PM	Dinner at the Lodge
	7:30 - 8:30 PM	<b>Preview</b> of Saturday Tour by Dr. Robert Powell in Annex II lounge
Saturday October 29	8:00 - 8:45 AM	Breakfast at the Lodge
	9:00 AM Sharp	<b>Saturday Tour</b> – Meet the van in the Lodge parking lot
	Noon	<b>Lunch at Ladore</b>
	1:00 PM	<b>Saturday Tour</b> – Continue the tour to additional sites
	4:00 PM	Return to Ladore
	5:00 PM	<b>Dinner at the Lodge</b>
	6:30 – 6:45 PM	A short PCS Membership Meeting in Annex II lounge
Sunday October 30	7:00 – 8:00 PM	A presentation on the D&H Gravity RR by Dr. Robert Powell in Annex II Lounge
	8:00 - 8:45 AM	Breakfast at the Lodge
	9:00 – 10:00 AM	Board Meeting in the Annex II Lounge – everyone is invited to attend
	10:00 AM - Noon	<b>Sunday Tour</b> - Meet in the van in the Lodge parking lot for a visit to D&H Lock 36

A big **thanks** to Dr. S. Robert Powell, President of the Carbondale Historical Society, who is serving as our guide and providing the preview on Friday evening and our Saturday evening presentation. Dr. Powell has 28 books on DVD about the D&H Gravity Railroad (order at [carbondalepahistorical.org](http://carbondalepahistorical.org)).

Also, a big **thank you** to Jane Varcoe, President of Waymart Historical Society; Scott and Paula Bennett, site owners of D&H Gravity Railroad Plane No. 14; Carol Dunn, Executive Director of Wayne County Historical Society.

**Please mail completed registration form** to the registrar with a check payable to *Pennsylvania Canal Society*, preferably mailed on or before October 1, 2022 to:

Pennsylvania Canal Society  
c/o Adrienne Logan  
78 John Glenn Dr  
Phoenixville PA 19460-1908


**Questions?** Contact Doug Logan at 610-955-6436 (text or leave a message), or email [PaCanals.info@gmail.com](mailto:PaCanals.info@gmail.com)

Report on the 2022 Fall Tour:

*Canal Currents*  
bulletin of the PENNSYLVANIA CANAL SOCIETY

ISSUE 201 Fall 2022

## PCS Fall Tour: D&H Gravity Railroad



In October PCS members toured the D&H Gravity Railroad. The weekend began Friday with the Early Bird Tour which included a stop at Lock 31 Park in Hawley. For an article and photos from the tour, turn to page 4.

Photo by Doug Logan

To see what's inside this issue of *Canal Currents*, turn to page 2.

*Canal Currents* is published quarterly by the  
Pennsylvania Canal Society for its members.

Newsletter submissions may be sent to:

Cathy L. Snyder Houser - Editor [canalcurrents@gmail.com](mailto:canalcurrents@gmail.com)

Submission deadline for our next edition: January 15, 2023

Pennsylvania Canal Society  
National Canal Museum  
2750 Hugh Moore Park Road  
Easton, PA 18042  
[www.pacanalsociety.org](http://www.pacanalsociety.org)

The Pennsylvania Canal Society is a non-profit, educational organization. The purpose of the Society is to preserve and transmit the rich heritage of canal transport in Pennsylvania. To attain these objectives, the Society:

- supports the National Canal Museum and library at Easton, Pa.;
- conducts tours of canal sites in Pennsylvania and other states;
- encourages canal research, conducted in libraries and/or by means of explorations in the field;
- makes available to the public the Society's collection of books, pictures and documents pertaining to the construction and operation of canals;
- publishes *CANAL CURRENTS*, a journal of articles detailing the research and field activities of persons interested in canals;
- provides members to present illustrated lectures and conduct tours for non-profit groups and schools.

**Members of the Board of the Pennsylvania Canal Society:**

President - Doug Logan: Phoenixville, PA  
Vice President - David Wright: Bridgeville, PA  
Treasurer - R. Gordon Perry: Saylorsburg, PA  
Secretary - Terry and Rose Hastings: Baltimore, MD  
Robert H. Barth: Somerville, NJ  
Stephen W. Decker: Middlesex, NY  
David Johnson: Bethesda, MD  
William Lampert: White Haven, PA  
Vernon Wiegand: Holland, PA  
Todd Wilson: Pittsburgh, PA

### Inside *Canal Currents*

President's Letter	Page 3
New museum highlights	Page 3
D&H Canal	
PCS Fall Tour:	Page 4
D&H Gravity Railroad	
The People Who Made the	Page 5
Tour Possible	
French Creek Feeder	Page 7

### MEMBERSHIP FORM

Members: If you don't keep your *Canal Currents*, please pass it along to someone who's not a member. Not a member? Here's how to join:

Name \_\_\_\_\_

(Title: Mr., Mrs., Ms., Dr., etc.) First MI Last

Address: \_\_\_\_\_

City: \_\_\_\_\_

State: \_\_\_\_\_ Zip: \_\_\_\_\_

Phone: \_\_\_\_\_

Email: \_\_\_\_\_

Student \$18, Individual \$20, Dual (using same address) \$25

This form and other dues classifications available online at:

<http://pacanalsociety.org/membership.htm>

Checks payable to the Pennsylvania Canal Society and mailed to:

PA Canal Society  
2750 Hugh Moore Park Road  
Easton, PA 18042

## A letter from the President



As I promised in my letter back in Issue 199, Spring 2022, we've brought back an article by Terry Woods from 1976 (see page 7). The western end of the state does not have a lot of canal remains and his article helps explain why. The Western Division of the Main Line was abandoned early in the life of the Pennsylvania Railroad, which bought the Main Line from the state in 1857.

Our Fall Tour went well and was well received. I've heard from several people who really appreciated it. We thank all those folks involved who assisted with the tour and welcomed us at their museums or gave permission and guided us to remains on their property (see related article on page 5). We couldn't have done it without you!

Our break-even count was more than met, and while we needed another van, we still came out ahead, which balanced out a small loss from our Spring Tour. The Treasurer's Report is still being reviewed but it looks like we're in the black for 2022.

At the Board of Directors meeting, the officers were re-elected, and a new printing and mailing service was approved. The new glossy look of *Canal Currents* is a result of that change.

We don't have any tours scheduled yet for 2023 but we're working on it. The Fall Tour took up a lot of time, some of which would normally be spent on planning. As always, I hope to see you soon!

Doug Logan

PaCanals.info@gmail.com 610-955-6436 (text me or leave a voice message)

## New Museum highlights the D&H Canal

By Linda Barth

(This article is condensed from ACS' *American Canals*, Vol. LI No.3, p. 15)

New York's Hudson River Valley has an exciting new attraction: the Delaware and Hudson Canal Museum. Notably the museum also houses the Mid-Hudson Visitor Center in High Falls, N.Y. In 2015 the D&H Canal Historical Society purchased the 1797 DePuy Tavern, which had been a four-star restaurant for decades.

To tell the story of the D&H Canal, the museum's designers created interactive exhibits that can be touched and explored. These include a working lock model with a mirror above that allows visitors to view the lock from a different perspective and a doorbell that allows you to listen to an excerpt of a speech.

On one panel, the visitor drags a torch that causes an explosive sound, mimicking a blasting experience that could result in different outcomes.

This museum is based on the formulas of Washington, D.C.'s Holocaust Memorial Museum and the Smithsonian's Museum of African American History and Culture. The visitor center, in the former kitchen of the tavern, features murals highlighting key sites, a carefully curated brochure rack, a gift shop, and an interactive digital concierge system. These amenities enable visitors to quickly access key information to plan visits in the Mid-Hudson area.



The former 1797 DePuy Tavern, now the Delaware and Hudson Canal Museum, and the Mid-Hudson Visitor Center.

Photo from D&H Canal museum website [www.canalmuseum.org](http://www.canalmuseum.org)

Located at 1315 Main Street, High Falls, NY 12440, the museum is open every day 10 a.m. to 5 p.m. Admission is free, but donations are always appreciated. For more information and for fall/winter hours, please visit or contact the museum at 845-687-2000 or [www.canalmuseum.org](http://www.canalmuseum.org).

## PCS Fall Tour: D&H Gravity Railroad

By Doug Logan

For our Friday Early Bird Tour all but a few of our group of canallers had arrived. We loaded into the vans and headed for Hawley. After a short drive we arrived at Lock 31 Park and were greeted by the sight of a canal boat sitting in the basin above the lock. It was a very recently built mockup that is full-size. It's constructed over a pavilion built earlier that has a glassed-in example of a canal boat cabin and its contents. Sally Talaga gave us a tour of the mockup and pavilion, followed by a walk to Lock 31. Due to occupancy restrictions for Daniels Farmhouse, we weren't able to go inside, but Talaga described it for us. It was built shortly before the canal and served as a way-stop, offering rooms, meals, spirits, and a second story dance hall.

When we returned to Ladore, Dr. S. Robert Powell joined us for dinner, and showed several D&H Gravity Railroad videos and talked about Saturday's tour.

After breakfast, we again loaded into the vans for the Saturday Tour, which began at the towering Carbondale City Hall where we were greeted by Dr. Powell. We climbed the old stairs to third floor Carbondale Historical Society Museum which has

(Continued on Page 6)

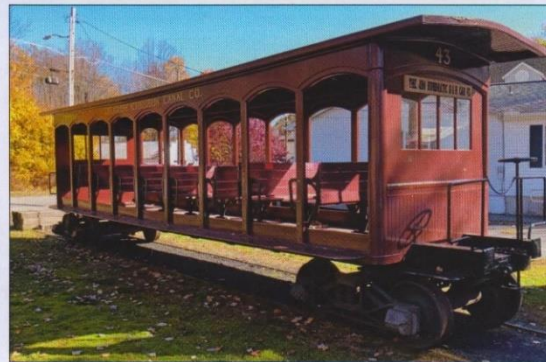
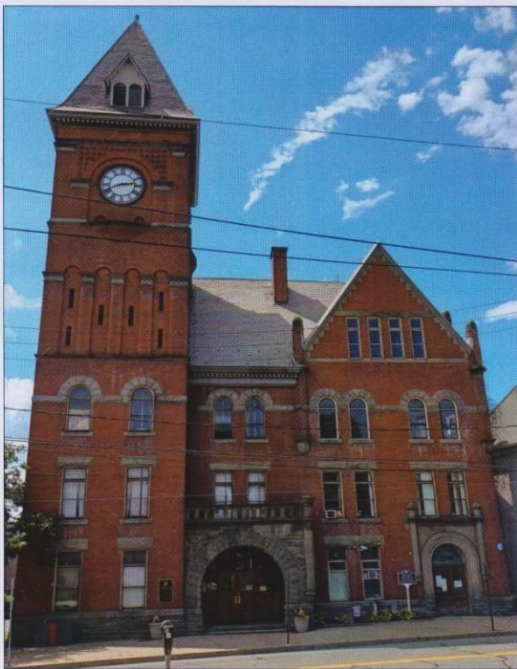


Above: Friday's Early Bird Tour began in Hawley at Lock 31 Park which features a full-size mock canal boat built over a pavilion.

Left: Saturday's tour began at Carbondale City Hall to visit the Carbondale Historical Society Museum.

Below: Saturday morning included a stop at the D&H Gravity Depot and Gravity Passenger Car.

Photos by Bob Barth (above) and Doug Logan



## *D&H Gravity Railroad: The People Who Made the Tour Possible*

By Doug Logan

I reflect now and then, quietly in awe of all the efforts of all the great people who made our tours successful. Our gratitude this time goes to a spectacular list of people who made this one possible.

First and foremost, we thank Dr. S. Robert Powell who is president of the Carbondale Historical Society and Museum. Dr. Powell gave us the presentations on the gravity railroad on Friday and Saturday night and served as a wonderful guide on the Saturday tour. He also contacted the Bennett's and obtained permission for us to visit Plane No. 14.

We thank Jane Varcoe who runs the Waymart Area Historical Society and the D&H Gravity Depot Museum, which has a gravity passenger car outside the depot. Jane was extremely helpful during our planning trips when we saw the *Depot Open* sign and stopped in. She was instrumental in getting our planning off to a great start and immediately arranged for lunch with Dr. Powell.

During our scouting, we met Carol Dunn at Lock 31 Park, which has a canal basin in addition to Lock 31, the Daniels Farmhouse, and walking trails. Carol is executive director of Wayne County Historical Society (WCHS) and in addition to personally giving the tour of the main museum in Honesdale on Saturday afternoon, she made arrangements for all three days of our tours at WCHS museums and put us in touch with the Frei's, making arrangements for our Sunday visit. Thank you, Carol.

Thanks go to Sally Talaga who was also at Lock 31 Park working on the Daniels Farmhouse during our scouting. She's the previous executive director of WCHS, and she gave us a delightful Friday Early Bird Tour and explained about the new structure that greeted us when we arrived at the park.

We were thrilled to be able to visit with Scott and Paula Bennett who showed us around their property and light Plane No. 14, and the engine mount at the top. Thank you for allowing us to visit and for showing us around.

Thanks to Stan Pratt who gave us a most interesting Sunday morning talk and tour of the Honesdale Fire Museum, which has the restored and working Silsby



Many people helped make the Fall Tour possible. On Sunday, John and Cathy Frei welcomed visitors to Lock House # 22 and Locks 22 and 23 at the Narrows of the Lackawaxen.

Photo by Doug Logan

Steam Fire Engine #483 purchased in early 1875.

John and Cathy Frei get a special thanks. They were contacted about a week before the tour and were more than gracious in allowing us to visit Lock House # 22, as well as guiding us to Locks 22 & 23 and the remains of the huge towpath wall at the "Narrows" on the Lackawaxen. John also made delicious chocolate chip cookies for us and bagged them up beautifully in a basket.

One more thank-you goes to Mike and Mary Riley, who went above and beyond, cutting their vacation plans short to drive our second van, when the person slated to drive had to bow out on short notice.

If you want to dig deeper on the Gravity Railroad, Dr. Powell has published 28 books on DVD related to the D&H and the Gravity Railroad, which you can buy through CHS ([carbondalepahistorical.org/shop](http://carbondalepahistorical.org/shop)). He also has a host of books and articles that you can obtain from the Internet Archive, a non-profit library of free material. To get started go to [archive.org](http://archive.org), enter *D&H Canal Company* for your search, check "Search text contents" and click "GO." Many of the 1600+ texts returned will be by Dr. Powell.

Thank you all so much!

## PCS Fall Tour: D&H Gravity Railroad



Above: Scott Bennet and Dr. Powell at Plane No. 14.



Top right: The Stourbridge Lion at Wayne County Historical Society Museum.

Bottom right: The Honesdale Fire Museum Engine 3.

Photos by Doug Logan and Bob Barth (top right)

### *From Page 4*

many things that made life special in Carbondale, including D&H Gravity Railroad artifacts. Dr. Powell gave us a great tour of the three rooms that make up the museum. From there he directed us past the monument to America's First Underground Anthracite Mine, on our way to Gravity Park. The park was established by the D&H Company on a portion of Plane No. 1. Dr. Powell walked with us from the parking lot and talked about Plane No. 1 and its role in Carbondale history.

On our way to Waymart, Dr. Powell pointed out the route and location of several planes as we drove up and over Moosic Mountain. Jane Varcoe greeted us at the Gravity Depot in Waymart and told us about the town's name and the depot, then gave us a tour and ran a working model layout of a gravity plane.

We stopped back at Ladore for lunch and afterward headed for Plane No. 14, owned by Scott and Paula Bennett. Scott showed us a piece of old steel cable used on the plane and took us up to the top and the stone mount remains for a stationary steam engine. The mount was enclosed by stone walls and all were in incredibly good condition. The winding wheel, steam engine, and boiler would all have been located there. Other nearby stone walls were a bit of a mystery as to what they once supported. The loaded gravity track, between Plane No. 12 and Honesdale, crossed over No. 14 near what's now the top of the driveway. At one time No. 14 was water-powered, from the bottom where the water was, rather than the top of plane.

The old D&H Canal Company Office in Honesdale is now Wayne County Historical Society's Main Museum and was our last Saturday stop. We were greeted by Executive Director Carol Dunn who gave us a tour that included



a full-size working replica of the Stourbridge Lion built by the D&H Shops in 1932, and a D&H gravity passenger car. There were also several small models of the Lion, including one that could be operated, so you could see how the early grasshopper propulsion arrangement worked.

After supper at Ladore, we had a brief membership meeting in which the four incumbent board members were elected, and acceptance of the Treasurer's Reports for 2020 and 2021 was deferred to the board. After the meeting, Dr. Powell talked about some pictures he brought with him including some of unusual gravestones brought by Welsh immigrants. When they were brought to the U.S. by the D&H as mining experts and engineers, they knew it was unlikely that they would ever return to Wales. They were proud of their Welsh identity and it was reflected in the inscriptions on the stones. Not surprisingly, Dr. Powell has some Welsh in his family history.

After breakfast, about half the group stayed on for

(Continued on Page 8)

**FRENCH CREEK FEEDER**

By TERRY K. WOODS

This article was published in  
*Canal Currents* Issue 34, Spring 1976

The State of Pennsylvania, on Feb. 25, 1826, passed an act authorizing "the commencement of a canal to be known as 'The Pennsylvania Canal' and to be constructed at the expense of the state." This canal was to be part of a transportation system that would eventually connect Philadelphia, Pittsburgh and Lake Erie.

Initially, though, the "Act of 1826" empowered the Canal Commissioners to immediately begin construction of the canal at only three points: first, along the Susquehanna River from Swatara Creek to the Juniata River; second, along the Allegheny River from Pittsburgh to the Kiskiminetas River; and third, down French Creek connecting Conneaut Lake, Meadville and Franklin.

Originally, the north-south leg of the Pennsylvania Canal was to have left the Western Division near the junction of the Kiskiminetas and Allegheny River (Freeport), run northward along the Allegheny to Franklin, then up French Creek to Meadville and from there around Conneaut Lake to Erie. The canal we know as the French Creek Feeder was actually to have been part of the main canal to Lake Erie. And it was with this knowledge in mind that the citizens of Meadville and surrounding area set out to hold a "ground breaking" ceremony for the beginning of their canal to the lucrative eastern markets.

At ten o'clock in the morning of Aug. 27, 1827 the citizens of Meadville formed into a procession and marched away from the village "Diamond" to the booming of a cannon from Captain J.D. Torbett's company of artillery, peals from the borough's church bells and strains of patriotic music from the local brass band.

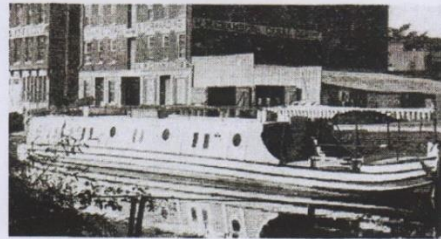
The procession wended its way through the streets of Meadville until it came to a point on French Creek opposite the then residence of A.C. Huidekoper. Here, Reverend Timothy Alden offered a prayer and delivered a stirring address. Then followed the official "breaking of the ground" which was performed by two of the area's early settlers—Robert Fitz Randolph, nearly 90 years old at the time, and Cornelius Van Horne, then over 80.

A team and plow were produced to break up the earth, followed by eight laborers who shoveled several wheelbarrow loads of earth and wheeled them away. While all this was going on the crowd cheered mightily and the artillery cannon banged out a 13 round "salute." The procession then reformed and marched back to town for a cold lunch and many, many toasts.

The "Meadville Canal" began at Bemus' Mill, about 2 ½ miles north of Meadville in French Creek. It then ran down the east side of that creek to near the mouth of the Conneaut Lake outlet. Here, the canal crossed French Creek on a stone aqueduct then ran south and west in a somewhat circular route and followed the Conneaut outlet, on the north side, to Conneaut Lake itself—a total distance of 27 miles. The State also constructed a 22 mile canal along French Creek from Bemus' Mill to Franklin.

The aqueduct over French Creek wasn't completed until 1830, but the citizens of Meadville had grown

impatient and celebrated the "opening" of navigation on "their" canal more than a year before! On Nov. 28, 1829 two large flatboats were launched at Lord's Basin just above Meadville. One, the *Enterprise*, was fitted up suitably to haul a load of local dignitaries. It was accompanied by another well loaded boat—50 feet in length which had been built by three local men in two days from the time the trees were growing in the forests near by. A "nine pounder" from the arsenal added to the tumult raised by pealing church bells and the cheering crowd as the *Enterprise* and *William Lehman*, both drawn by fine spans of horses, traveled four miles up the canal and back. Upon their return, they were greeted with a "National Salute" of 13 guns and the usual uncountable number of toasts.



Canal Terminus at Meadville

By 1831, however, the "bloom" was gone from the Meadville Canal. Loud, "important" voices from Pittsburgh had been heard in Harrisburg and the route of the northern canal to Lake Erie was shifted west from the Allegheny valley to that of the Beaver. This required through canal traffic from the east to Lake Erie to go through Pittsburgh, but it left the Meadville Canal somewhat isolated.

The Beaver Division, as that leg of that northern canal became known, was completed to five miles north of New Castle in 1834. That same year, Dec. 13, 1834, the Meadville Canal was completed to Conneaut Lake. In 1836 the Shenango Division was authorized to be run from the northern terminus of the Beaver Division to Conneaut Lake. In 1838 the Conneaut Division was authorized to take the canal the final 45 miles to Erie. The building of this latter division caused the Meadville Canal to be extended to unite with the main Beaver & Erie Canal near the line of Summit and Sadsbury townships.

The Conneaut Division was a long time being finished and the State grew weary of the expense. Therefore, in 1843, the entire Beaver & Erie project (including the French Creek Feeder) was sold to the Erie Canal Company, of Erie, Pa. So what had begun as an important segment of Pennsylvania's State canal to the Lake became part of a "feeder" to a private canal completed too late (1844) and too much lockage (71 locks on the Conneaut Division alone) to compete effectively with the onrushing railroads.

The Beaver & Erie Canal was purchased by the Erie & Pittsburgh R.R. (a subsidiary of the mighty Pennsylvania RR.) in 1870 and in 1871 it and the French Creek Feeder were closed for all time.

## PCS Fall Tour: D&H Gravity Railroad

*From Page 6*

the Sunday Tour. Instead of Lock 36 as originally advertised, the Sunday Tour visited the Honesdale Fire Museum, Locks 22 & 23, and Lock House # 22, home of John and Cathy Frei. Stan Pratt gave us an excellent tour of the gorgeous Silsby Steam Fire Engine #483 first purchased in early 1875. This simple but very bright and shiny horse-drawn engine has been beautifully restored and is run several times a year. It's the oldest operable Silsby steamer in the United States.

Our last stop of the weekend was spent looking at Locks 22 & 23 near the "Narrows" of the Lackawaxen. The Frei's gave us a tour of the locks and the remains of the huge dry-stone wall built to contain the canal at this rocky outcropping that protruded into the river's path. We could only imagine what the much bigger portion of the wall was like before it was washed away in a flood. The Frei's gave us home-made cookies and a tour of their beautifully remodeled two-story lock house with walk-in basement and an amazing kitchen. It was a lovely way to end our weekend before we said goodbye.

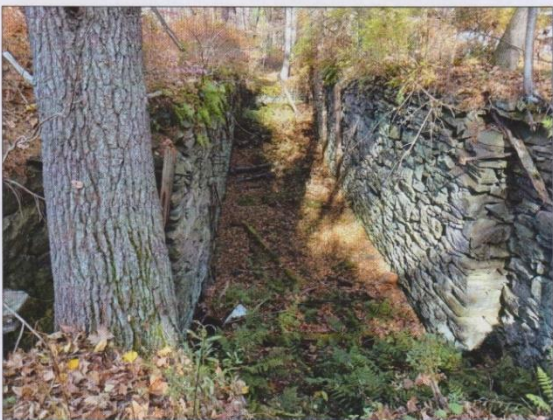


Above: The last stop of the weekend took members to the "Narrows" of the Lackawaxen and the remains of the towpath wall by Lock 23.

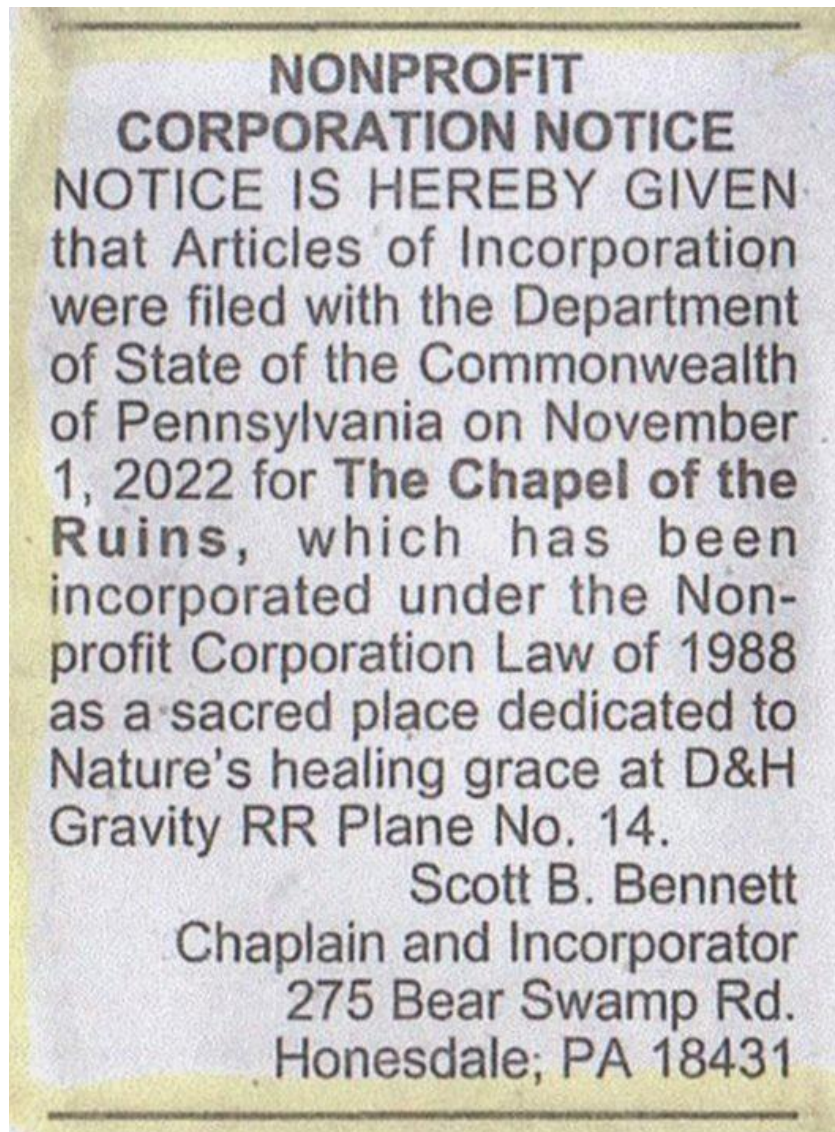
Bottom left: Lock 22 at John and Cathy Frei's Lock House #22.

Bottom right: Lock 23 near the Narrows.

Photos by Doug Logan



103. "The Chapel of the Ruins at D&H Gravity Plane No. 14, with Scott B. Bennett, Chaplain"; legal notice in newspaper found by Jane Varcoe in December 2022:

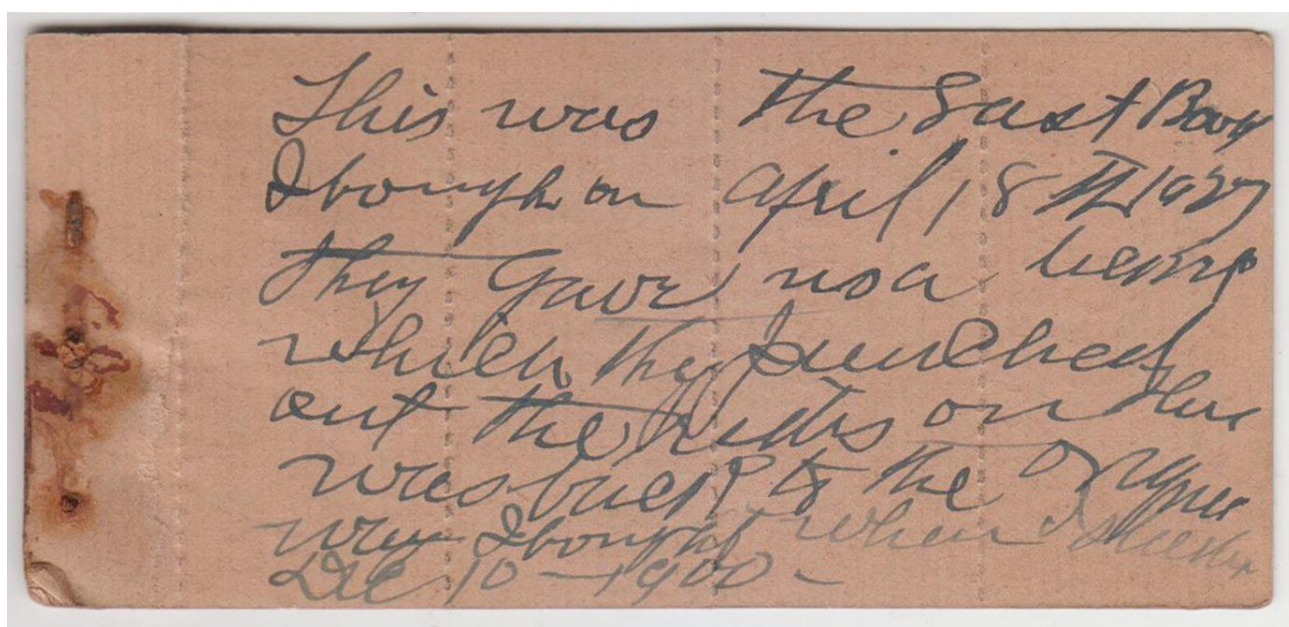
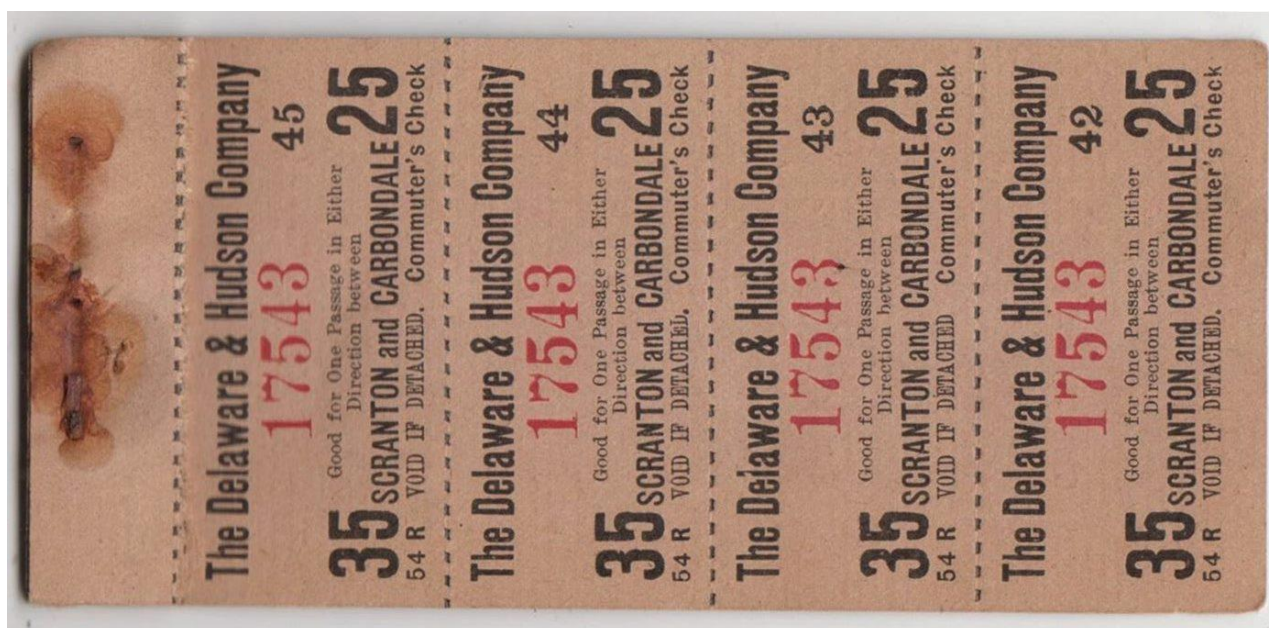


104. D&H ticket No. 17543, April 16, 1927, issued to John B. Jordan; ticket found in the collection of the Carbondale Historical Society on December 17, 2022. This ticket was donated to the Carbondale Historical Society on August 23, 2017 by Steve Putzi, 119 Wyoming Street, Carbondale, PA. Photos of these materials were posted on Facebook on the Delaware and Hudson Railroad page on December 18 by SRP, with this introduction:

**“D&H Commutation Ticket, Scranton - Carbondale:** Shown here are four photos of a 54-ride commutation ticket, Scranton-Carbondale, 1926-1929, that J. B. Jordan purchased. Ticket now in the collection of the Carbondale Historical Society. One of these photos is of the back of this ticket, on which Jordan wrote a “commemorative / historical” note. Handwriting experts/cryptographers: What did he write thereon? Here is a guess, on our part, of what he wrote: “This was the last [ticket] book I bought [it] on April 18th 1927. They gave now temp [tickets] which they punched out the rights on their runs back to the D&H yard where I bought when I started (?) Dec. 10 1900”. Any help in reading/understanding what Jordan wrote would be much appreciated.”

32 “Likes” overnight, but no deciphering attempts were made as of December 19.





Working together, Cody Gonsauls (Carbondale Historical Society member who is very good at deciphering problematic handwriting) and SRP determined that the text shown below is written on the reverse of this ticket:

This was The last Book  
I Bought on April 18<sup>th</sup> 1927  
They Gave us a temp  
which they punched  
OUT The Seats on their  
Way Back to The D+H Yard  
Where I Bought when I Started  
Dec 10 - 1900 -

105. Photo of Whitehall Roundhouse and D&H yard; posted on Facebook D&H group, December 18, Burdock Gordon: "Whitehall in its hay day." [SRP: "heyday" not "hay day"]:



**Rock Ledge Farm: Edward Seaman:** This would have been prior 1932-33 since the main-track relocation project during those years would change everything seen to the upper right.. wood end-cupola caboose and center cupolas are seen of the post-1910 style, as is the newer, larger power at roundhouse.

And there you have it. One hundred and five items that “surfaced” or were created/written in 2022 about the Delaware and Hudson Railroad. All of these items are important components of the “always growing” body of data about the D&H that must be saved/incorporated into the History of the Delaware and Hudson Railroad.

S. Robert Powell  
December 21, 2022